Illinois Environmental Protection Agency
Bureau of Air
Permit Section

June 16, 2016

Responsiveness Summary for the Significant Modification of the Clean Air Act Permit Program (CAAPP) Permit Issued to Midwest Generation, LLC for the Waukegan Generating Station Waukegan, Illinois

Source I.D. No.: 097190AAC
Permit No.: 95090047

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A. DECISION

On June 16, 2016, the Illinois EPA issued a revised Clean Air Act Permit Program (CAAPP) permit to Midwest Generation, LLC, for the Waukegan Generating Station (Waukegan Station).

B. BACKGROUND

The Waukegan Station is a coal-fired electric power plant owned and operated by Midwest Generation. The plant has two active coal-fired boilers that produce steam that is then used to generate electricity. Another coal-fired boiler was retired in 2007. The Waukegan Station qualifies as a major source of emissions under Illinois' Clean Air Act Permit Program (CAAPP).

The CAAPP is Illinois' operating permit program for sources of emissions pursuant to Title V of the federal Clean Air Act. The CAAPP is administered by the Illinois EPA. The CAAPP generally requires that major stationary sources of emissions in Illinois apply for and obtain CAAPP permits. CAAPP permits contain conditions identifying applicable air pollution control requirements under the federal Clean Air Act and Illinois' Environmental Protection Act (Act). Compliance procedures, including testing, monitoring, recordkeeping and reporting requirements, are also established as required or necessary to assure compliance and accomplish the purposes of the CAAPP. The conditions of a CAAPP permit are enforceable by the Illinois EPA, USEPA and the public.

The Illinois EPA issued the initial CAAPP permit for the Waukegan Station on February 7, 2006. Midwest Generation appealed this permit to the Illinois Pollution Control Board (Board), contending that a number of conditions in the permit were erroneous or unwarranted. On March 16, 2006, the Board accepted Midwest Generation's appeal and confirmed that the initial CAAPP permit was stayed in its entirety by operation of the law.[1]

Midwest Generation and the Illinois EPA, with the assistance of the Office of the Illinois Attorney General, have now successfully settled this appeal. The issuance of this revised CAAPP permit is a critical step in getting a CAAPP permit in place for the Waukegan Station. It will be followed by a subsequent revision to this permit in a "reopening proceeding." In the reopening, emission control requirements that have been adopted since 2006, with which the Waukegan Station must already fully comply, will be included in the permit.[2]

C. OPPORTUNITY FOR PUBLIC COMMENTS

The issuance of this revised permit was preceded by a public comment period in accordance with Section 39.5(8) of the Act and 35 IAC Part 252. A draft of the revised permit and the accompanying Statement of Basis prepared by the Illinois EPA were made available for review by the public at the Waukegan Public Library, the Illinois EPA's offices in Des Plaines and the Illinois EPA

[1] The Waukegan Station is one of many coal-fired power plants in Illinois whose initial CAAPP permits were issued roughly a decade ago and subsequently appealed to the Illinois Pollution Control Board and stayed in their entirety.

[2] The principle "new" requirements that will be added into the CAAPP permit for the Waukegan Station are applicable requirements of recently adopted rules, such as the Cross State Air Pollution Rule (CSAPR) and the Mercury and Air Toxics Standards (MATS), and limits set by construction permits issued for the Waukegan Station since 2006. Even though these requirements are not addressed in the permit that has now been issued, Midwest Generation is still subject to and must comply with these requirements.

Headquarters in Springfield. The comment period began on July 18, 2015 and ended on October 30, 2015.

A public hearing was held at 7:00 PM on September 2, 2015 at the Illinois Beach Resort and Conference Center in Zion. In addition to oral comments made at the hearing, written comments on the planned issuance of a revised permit were also received. Written comments were received from the Lake County Health Department, the League of United Latin American Citizens of Lake County and a number of area residents. Written comments were also jointly submitted by the Environmental Law and Policy Center, Natural Resources Defense Council, Respiratory Health Association and the Sierra Club. The USEPA also submitted written comments on the planned changes to the permit. The Illinois EPA's responses to these comments are provided in this Responsiveness Summary.[3]

D. AVAILABILITY OF DOCUMENTS

Copies of this Responsiveness Summary and the revised CAAPP permit that has been issued are being made available for viewing by the public at the Illinois EPA's Headquarters at 1021 North Grand Avenue East in Springfield and at the Waukegan Public Library, 128 North County Street in Waukegan.

Copies are also available electronically at www.epa.illinois.gov/public-notices and www.epa.gov/region5/air/permits/ilonline.html.

Printed copies of these documents are also available free of charge by calling the Illinois EPA's Toll Free Environmental Helpline, 888/372-1996, or by contacting Brad Frost at the Illinois EPA's Office of Community Relations:

217/782-7027 Desk Telephone
217/782-9143 TDD
217/524-5023 Facsimile

Email: Brad.Frost@illinois.gov.

E. GENERAL OVERVIEW OF PUBLIC COMMENTS

The proposal to issue a revised CAAPP permit for the Waukegan Station generated a variety of comments from the public and a number of environmental organizations. The comments that were submitted were helpful to the Illinois EPA in the decision-making process and these comments were fully considered by the Illinois EPA prior to issuing the revised permit.

A major concern was the impacts of the emissions of the Waukegan Station on public health. The health impacts of coal-fired electric power plants has been the subject of considerable scientific scrutiny. Power plants do emit pollutants that in sufficiently high concentrations can have health effects, particularly for people suffering from asthma, chronic respiratory diseases or heart disease. Some studies have found that emissions from existing coal-fired power plants in Illinois do contribute to these effects at levels that can be predicted mathematically. However, those studies do not demonstrate that existing plants like the Waukegan Station power pose a significant risk to public health individually. Indeed, having an adequate, reliable and affordable

[3] This Responsiveness Summary addresses significant comments received during the public comment period that may be relevant to this permitting action. Comments are not necessarily provided in their entirety or verbatim.

supply of electricity is also essential to modern society, and to the health and well-being of the public. Rather, the purpose of those studies is to influence public policy toward reducing the emissions and any associated health impacts from existing power plants. As such, one purpose of those studies is to support the adoption of new laws and rules to have these existing power plants upgraded to with modern emission controls. This has occurred and the emission controls at the Waukegan Station have been upgraded.

People were also concerned about the potential for disproportionate health risks to people who live in Environmental Justice Areas attempts to address those potential risks in its various programs. For example, as noted in the comment, concerns about mercury contamination and programs to address such contamination and control mercury emissions are driven by the need to protect fetuses, infants and children. NAAQS are set at stringent levels as needed to protect sensitive sectors of the population, notably the young, as well as the elderly and those already suffering from respiratory disease, as appropriate based on the potential effects of exposure to a pollutant. NAAQS are not set just at the higher, less stringent level to protect healthy adults. State and federal programs to reduce emissions from school buses arise from concerns about potential health effects on children who ride those school buses. However, concerns about children do not necessitate an additional assessment as part of the permitting of the plant. This is because the regulatory programs that are being implemented through this permit already address concerns about disproportionate impacts of emissions and poor air quality on children, wherever they are.

Several comments expressed concern with the fact that the CAAPP permit for the Waukegan Station has not been updated to reflect new applicable requirements that have become applicable since the permit was issued. Some of these concerns reflect a mistaken impression that Midwest Generation is avoiding the newer emission requirements either as a result of the current appeal or due to the absence of those same requirements in the revised permit issued by the Illinois EPA in this proceeding. The applicability of these requirements to the Waukegan Station has not depended upon their incorporation into the CAAPP permit for the source. Rather, such requirements became applicable to the source upon the effectiveness of the promulgated rules. The Illinois EPA will be revising the CAAPP permit to include the more recent Clean Air Act requirements that are applicable to the Waukegan Station in a future reopening proceeding.

The emissions of existing coal-fired power plants were also generally of concern. However, the emissions of vehicles, including cars, trucks and trains, generally pose similar concerns, and represent as a group a significant contribution to all air pollution. While the emissions of individual vehicles are generally small, depending upon type of vehicle and age, the total number of vehicles and the low height of discharge also make them an important category of source for ambient air quality in urban areas. It is important to be aware of the contribution of all pollution sources when making judgments about particular classes of sources.

F. SPECIFIC PUBLIC COMMENTS WITH RESPONSES BY THE ILLINOIS EPA

1. Public Health Concerns

Comment 1:

A number of comments expressed concerns regarding the high rate of asthma and other respiratory illness in the Waukegan area and the relationship of these illnesses to emissions from the Waukegan Station, which are consolidated into this single comment for purposes of response:

> When I hear the experts from the American Lung Association or Respiratory Health Association talk about the one-in-three asthma rate in Waukegan, and the emergency hospitalizations, and the other grim data for Lake County, I see my children. I know that misery is agitated and worsened by the dangerous air pollution from sources like the Waukegan Station. It is the largest source of air and water pollution in Lake County.
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> Four of my second graders this year have inhalers, and this is not new. I speak on behalf of these students and their families, who may not be here tonight because we are having another poor air quality day here in Lake County. Their critical breathing issues often impact their health, their time, their wallets, as they pay for the inhalers and nebulizers.
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> In addition to the public health concerns, I have academic concerns. I read an article this week highlighting the connection between air pollution and poor grade-point averages in fourth and fifth grade in Texas, but there is plenty of anecdotal evidence that says the same thing is true here in Waukegan and Lake County, given all the hospitalizations and missed school days. This is not a surprise to my colleagues or me.
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> I actually see cumulative effects of particulate matter straining those little bodies in my classroom. It impacts their attendance in school and when they are in my class, they have the inability to focus. The worst thing is I don't see them get enough rest at night where their bodies can repair the daily assaults from inhaling coal particulates every day.
>
> This fall, I saw cross country and soccer teams outside, and even residents like me. A lot of us like to be outside in our beautiful Lake County air, but when the air is polluted or we are dragging coal particulate matter deep into our own lungs. We are out exercising, trying to be healthy, but ironically we are becoming the air strainers for energy.
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> Our family of four has developed asthma symptoms since we moved to Lake County 20 years ago. My daughter and I need to use high-priced inhalers daily, which we really cannot afford. We also use an immersed C inhaler, when we are feeling badly, and which actually coincides with getting action alert text messages from the Sierra Club. I cannot do anything strenuous outside, not even mowing my lawn on those days. My daughter cannot ride her bicycle to work or exercise for more than a few minutes.
>
> I am an impacted resident and concerned citizen. One of the impacts is I have been diagnosed with a mild case of asthma. As a former high school teacher in Lake County, I saw the impact of more severe asthma in teenagers who suffered from it. Waukegan has a disproportionately high number of children, who suffer from asthma, which I think is associated with polluters locally.
>
> I am dismayed by Waukegan’s repeated air quality grade of F from the American Lung Association. I am saddened and angry at how the asthma rates that others had alluded to the before me.

I am here as a mother who wants to make sure that she will leave a healthier planet for her children. As a Catholic, I would like to share with you what Pope Frances shared. He indicated regarding weather climate and the impact that it will have on the perseverance of our future generations. This is a moral obligation. This planet is suffering like child birth pains. Let's not forget that we ourselves are the earth. The Pope also said that we have to stop the destruction of our planet for our own sake. It is everybody's home, and we have a calling to protect it. There is no time to waste when we see that the air and the water are being poisoned. Our families' health is in the middle. Many children in our community are suffering asthma and many more ailments.

For our membership (Mom's Clean Air Force) and others with asthma and respiratory illnesses, especially children, every hour and minute of exposure to these noxious chemicals makes a difference. In 2014, the pediatric asthma survey by the Lake County Health Department showed over 30 percent of children surveyed were diagnosed with asthma, or worded as asthmatic symptoms in Waukegan and Zion. That is over three times the national average for a child with asthma. Asthma is not just an inconvenient illness. It means missed school days for children, missed work days for parents, higher hospital and doctor costs, and economic repercussions that expand into the entire household.

I am born and raised in Waukegan, and I shouldn't have to sit inside the house and wonder whether it's safe to take my child outside to play or not. Like thousands of people in Waukegan, I have asthma. My asthma has always held me back through all my childhood, and it was worse when I got to 20. I live right up the street from the coal plant. It's the largest source of air pollution in my community, and I know it's impacting the air I breathe. I want my son to have clean air so that he can have the opportunities that I didn't have. It's time to put people before profit. I cannot believe that this plant did not have the required permit for its air pollution. This puts many lives in jeopardy.

I have asthma, and because of ozone alerts, I end up in the hospital because I can't breathe. Last summer, I was in the hospital almost five times because I couldn't breathe. Can you imagine it's not a pleasant feeling, and the coal plant just makes that worse. More ozone alert days, more hospital visits and no more dogs. I told you how much animals mean to me. There are thousands of animals and different species that live next to the coal plant on Lake Michigan, and they should be protected from the air pollution, just like me. We need to do a better job of protecting our environment. Please do your job and protect the air we breathe.

I am here on behalf of my husband and my daughter. My husband was born with asthma; however, he grew out of it, and we purchased our first home in downtown Waukegan in June of 2010. Since then, my husband and my daughter have been treated at Vista East Hospital a total of 12 times combined, to have breathing treatments just so they can control their asthma that was never an issue until we purchased our home. I am asking you today to please be in compliance; and at this point, I feel it is inhumane. As a mother, I have watched my daughter gasp for air plenty of times. She's waking me up in the middle of the night. Her lips are blue, and we have to drive with two smaller children in the car to the hospital, just to make sure that she's okay. I've watched my husband lie

on the floor on his back with his arms over his head, just trying to catch his breath. I am begging you, to please come into compliance and have respect for the people in our community, especially mine.

When my two grandkids get the asthma, all I can say is, "Oh, even here in Waukegan, our environment is not safe." So my daughter told me that. The doctor said we have to live in another place where there is cleaner air. Fortunately, my daughter has a very good assignment, and she was sent -- her husband and my daughter get a job in Florida, where they were assigned in a beautiful place. I suddenly find that when I visit them, my two grandkids with asthma were getting very, very healthy; and then my son-in-law and my daughter keep asking me, "When are you going to Florida? "Oh, my God, I say, "I cannot leave Waukegan, because I have my job here," and it seems to me the environment is good.

Last summer, after two ozone alert days in a row, I had to rush my child to the ER and stand by as she struggled to breathe. That is an experience that I would want to wish on anyone. Now I have to limit her outdoor play on many summer days, when my county has an ozone alert; and I would argue that being able to play outside on a beautiful summer day is her birth right, as well as the birth right of all the children in the area within the Waukegan Station air shed.

Waukegan's future depends upon a clean environment, where our children and families can thrive and business can grow. Why would anybody want to move to Waukegan when Lake County received an F from the American Lung association for air quality in 2015, and the largest source of air and water pollution is the Waukegan Station here on the Waukegan lakefront.

This is my six-year old grandson. As the second-grade teacher came up here and said they had poor air quality. This is what he needed. He could not ride his bicycle. He could not play with his friends. His air and his health is not for sale. I have two grandchildren and I, myself, use an inhaler. Our health is not for sale.

I am a Waukegan resident whose health is compromised by the toxic coal pollution generated by the Waukegan Station. The coal plant is a health liability to all of the residents of Waukegan.

As a resident of Waukegan, living within a short breath of the Waukegan Station, I write this letter on behalf of my fellow Waukegan residents, especially children. Our health is continually damaged by the emissions of the power plant. My family and I moved to Waukegan in 2002, and I have been diagnosed as having asthma. A disproportionate percentage of children in Waukegan suffer even more than me, especially on typical days when air quality in Waukegan is dangerously poor.

I am a resident of Waukegan who is affected by the emissions of the Waukegan Station. Since moving to Waukegan 13 years ago, I have developed respiratory problems that force me to use an inhaler on days when air quality in Waukegan is poor. I believe these problems are related to the emissions of the Waukegan Station.

The requirements of the draft permit present a real and ongoing health threat to the people who live in the region. This includes air particulate matter as well as coal ash leakage and heavy metals that find their way into Lake Michigan, our regional source of drinking water.

Waukegan's children have the highest rate of asthma in the state of Illinois at one in three children. This is unacceptable!! The people of Waukegan are not the only ones affected. I also have a chronic lung condition, and there are many days each year when my family and I are downwind from the air pollutants from this coal plant. That makes this a personal issue for me.

Response: Asthma is a respiratory disease affecting a small but significant percentage of the population. While poor air quality may have a role in triggering asthmatic attacks, it is questionable whether it is the cause of asthma. Poor air quality is also only one of many triggers for asthma. As reflected by these comments, individuals who have asthma need to be under a doctor's care. Doctors often prescribe "fast-acting" inhalers so individuals may quickly relieve certain acute asthma symptoms subject to further medical treatment as directed. Other medications delivered by inhalers may also be prescribed to reduce the chronic symptoms of asthma. Inhalers are likely more common now than many years ago because of better diagnosis and treatment of asthma, accompanied by better medications to treat asthma.

Additionally, poor air quality is likely only a small part of, and if anything a complication to, an asthma attack that was caused by some other larger trigger such as pollen, dust or smoke. To quantitatively link asthma to poor air quality and then to even go further and link that poor air quality to a specific source is beyond the requirements of anything that this permit would be allowed to implement or curtail.

The health impacts of coal-fired electric power plants have been the subject of considerable scientific scrutiny. These plants do emit pollutants that in sufficiently high concentrations can have health effects, particularly for people suffering from asthma, chronic respiratory diseases or heart disease. Scientific research continues to identify adverse health effects from air pollution. Some studies have found that emissions from coal-fired power plants do contribute to these effects at levels that can be predicted mathematically. Such studies do not demonstrate that emissions from the Waukegan plant are emitted in such concentrations as to directly cause health effects to nearby residents. Moreover, these studies do not demonstrate that power plants like the Waukegan Station pose a significant risk to the health of specific individuals. Indeed, having an adequate, reliable and affordable supply of electricity is also essential to modern society, and to the health and well-being of the public. Conceivably, the purpose of these studies has been to advance public policy in the direction of reducing the emissions and associated health impacts from existing power plants, many of which are over 50 years old.[4]

As already discussed, the Waukegan Station is subject to many new rules which impose stricter emission limits. It has also recently upgraded the emission control systems on the coal-fired boilers.

Comment 2:

I am a Sierra Club leader and volunteer, and I'm here on behalf of 2,000 members and more supporters throughout Lake County, who rely on the Illinois EPA to keep our air safe. I come here frequently to enjoy Illinois Beach State

[4] Recommendations from these studies include requests to legislatively impose more stringent emission limits on coal-fired power plant and for existing coal-fired power plants to be upgrade with more modern emission control technology.

Park. I was here a couple weekends ago to clean up the beach. The only thing we couldn't cleanup was the power plant and that's again why I'm here.

I have many friends, many of whom have spoken tonight and many more who live here in the shadow of Waukegan Station. Tonight I listened to your opening remarks, and I looked at the documents that the Illinois EPA brought and I'm convinced that the Illinois EPA and I came to different hearings.

You came to a hearing to serve Midwest Generation and I came to a hearing to find out whether the Illinois EPA is protecting and supporting my right to know whether the air that I and my friends breathe is poisoned by the Waukegan Station. You seem to have come to serve Midwest Generation and to announce what they told you to do. I came originally to ask this question - If I feel that my health is impacted by pollution from this plant, will the reporting, recordkeeping and monitoring that the Illinois EPA has agreed to with this company be available to me and actionable on a timeline that allows me to protect health?

How long will it cost for me to protect or to even benefit on my right to know? And further, to take advantage of Title 5, which I noticed you can't didn't manage to say, and participate in enforcement of the pollution control laws of this country.

Response: As clearly stated in the notice for the public hearing, the purpose of the hearing was to accept comments from the public on the draft of the revised CAAPP permit for the Waukegan Station prepared by the Illinois EPA to settle the appeal of the initial CAAPP permit for this source. The oral comments made at the hearing and the written comments that were received were helpful in understanding the public's concerns. However, they did not identify actions that the Illinois EPA could reasonably take in this permitting action to address those concerns consistent with settling the appeal of the initial CAAPP permit for the Waukegan Station.

With respect to ambient air quality, Lake County generally has better air quality than the City of Chicago. It does experience high levels of ozone. Ozone is a respiratory irritant and may contribute to asthmatic attacks and other effects that exacerbate the symptoms of people with respiratory diseases. However, the level of ozone in the air in Lake County is predominantly a result of its location on Lake Michigan downwind from Chicago. It is not emanating from the Waukegan Station, which contributes to ozone levels in the air further downwind. As such, the impact of coal-fired power plants on ozone air quality is appropriately addressed by USEPA rules that require overall reductions in NOx emissions on a regional level, notably the Cross State Air Pollution Rule (CSAPR) with which Midwest Generation must comply.

Finally, this comment appears to reflect a misunderstanding about the nature of the emission standards that apply to the boilers at the Waukegan Station. These emission standards are set at levels that reflect the levels of emissions that should reasonably never be exceeded by these boilers when appropriate measures are used to control their emissions. The emission standards were not "back-calculated" from risk analyses that determined the levels of emissions from the boilers at which adverse health impacts might occur. The consequence of this approach is that a violation of an emission standard would not directly correlate to a violation of the National Ambient Air Quality Standards (NAAQS) set to protect public health, with possible adverse health impacts for the public. Rather, a violation of an emission standard by a boiler would only reflect a violation of such standard, with emissions having been higher than

they should have been. The further consequence of this approach to emission standards is that ambient air quality is aggressively protected, with actual air quality normally being well below the levels of the NAAQS.

Comment 3:

My family moved here in 1966. I graduated from high school and went to University of Illinois for five years, and worked in Chicago for five years. So I've come here on weekends and for visits, and then I moved to another state, and now I've moved back here for two years. I'm shocked to learn about this, and I don't think the public should have to be explaining all the violations, and I took many courses on environmental issues. When I moved back here, I kept asking people, "What are those tall smoke stacks?" I see smoke coming out all day and at night, and it's a heavy, dense smoke. Most other places that have enacted laws don't have this white smoke pouring out. So it's obviously working at night and during the day. I want the city of Waukegan to grow economically, and I'm shocked to learn that this is going on right here, and I hope to live here for many more years.

Response: The dense white "smoke" addressed by this comment is condensed steam or water vapor. It is formed when moisture in the hot exhaust from the boilers cools when entering the atmosphere and condenses. It is similar to seeing one's breath on a cold day when you exhale and moisture in your warm breath condenses after entering the cold air. The presence of visible water vapor in the exhaust from the boilers is not an indication of emissions of particulate matter from the boilers. To determine by visual observation whether particulate matter is present in the exhaust of a unit with a visible steam plume, observations must be made at a point after the steam plume dissipates and is no longer visible.[5]

Comment 4:

One of the impacts of the Waukegan Station is mercury pollution. I have kids, and they want to go fishing. It is not healthy for them to eat the fish.

Response: The Waukegan Station is not allowed to emit "dangerous levels" of mercury, as implied by this comment. It is required to use modern control technology to reduce its contribution to mercury contamination in the environment, both locally and globally. The implications about local deposition of mercury made in the comment are flawed as they fail to address the total contribution to local mercury levels. The comment presumes that because some mercury emissions from the plant would be deposited locally that it causes a "hot spot." However, USEPA has not concluded that local deposition from a coal-fired power plant that controls its mercury emissions will result in a hot spot. Indeed, research also indicates that much of the mercury emissions from power plants in the United States does not deposit within the continental United States. At the same time, much of the mercury deposited in the United States originated elsewhere.

Given these circumstances, it is important that people be aware of and understand the advisories that are issued by the State of Illinois concerning consumption of fish caught from Illinois waters due to the levels of mercury and other contaminants. In particular, consumption of fish with high mercury levels may pose a health risk, especially for sensitive populations, i.e.,

[5] **The opacity monitoring systems on the boilers measure the opacity of the flue gas as it passes through the stacks. As monitoring is conducted within the stack, it is not affected by condensation of water vapor.**

children younger than 15 years of age and women who are or may become pregnant, to protect the unborn and nursing infants. Specific advisories are given for particular bodies of water, including Lake Michigan and the Waukegan North Harbor. Further information on the fish advisory for mercury, as well as for advisories for contaminants in fish other than mercury, is available from Department of Public Health:
www.idph.state.il.us/envhealth/fishadv/index.htm.

Comment 5:

The Waukegan Station would be able to continue to emit SO_2 and NOx, which produce acid rain.

Response: The Waukegan Station, as well as other coal-fired power plants across the country, is subject to the federal Acid Rain Program. This program has required reductions in and control of emissions of SO_2 and NOx from these plants to address their role in the formation of acid rain.

Comment 6:

The Waukegan Station emits carbon dioxide (CO_2) and other greenhouse gases, which contributes to global warming and floods and droughts and forest fires. Recently, the USEPA issued the clean power plan to reduce emissions of greenhouse gases. The USEPA needs to be applauded for this plan. It will reduce energy costs eventually and also reduce the future cost in future generations. The current USEPA Administrator, Gina McCarthy, in a webinar attended by myself last week, said we were the first generation to know about climate change and the last generation to do something about it.

In the last four years, we have seen 15,000,000 tons of CO_2 going into the air. In the next six years, we will see if that trend continues to 23,000,000 tons of CO_2. That is 46 billion pounds of CO_2. Although the permit was only the last six years, that CO_2 is going to last over 100 years.

Response: The State of Illinois supports the USEPA's Clean Power Plan and the reductions in emissions of greenhouse gases that it would achieve. This plan is an important step for the United States to recognize and address the role of existing electric power plants in contributing to global warming. However, it is not a matter that can be addressed in this permitting action.[6] Moreover, the Clean Power Plan does not mandate reductions in emissions from specific power plants. It instead targets overall reduction in emissions of greenhouse gases from power plants by allowing states and the affected power plants to identify the most efficient and cost-effective way to achieve the required reductions.

Comment 7:

[6] The Clean Power Plan, 40 CFR 60 Subpart UUUU, would require states, subject to oversight by USEPA, to adopt appropriate rules to require reductions in emissions of greenhouse gases from existing power plants within their boundaries. Many States will probably choose to not implement this rulemaking process until legal challenges to the Clean Power Plan are resolved. In this regard, the United States Supreme Court has stayed implementation of the Clean Power Plan pending action on these challenges by the federal court in which these challenges were filed.

Several comments were provided related to the availability of information for the public about emissions from the Waukegan Station and local air quality, which are consolidated into this single comment for purposes of response.

> I tend to rely on reports. So in the case of the Waukegan Station emissions of coal soot, SOx, NOx, and other toxins, we would like much more information. I have been a data freak, since working in the chemical industry a long time ago, and I want to know what the continuous and cumulative output of those pollutants are as they come out of those smoke stacks. Anyone living in the immediate area of the power plant should be able to use that data to possibly file a lawsuit against the power plant for violating the emissions standards that the Illinois EPA and USEPA have established for cumulative and historical output of those emissions.
>
> Continuous monitoring is key. Cumulative history is key. And the data should be available to the county and the state.
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> I feel the power plant has the utmost responsibility of informing the Illinois EPA and the public exactly how it is affecting the air quality in Lake County.
>
> The permit must provide public and government regulators, with the ability to enforce the permit through the courts with substantial fines for noncompliance. The permit must be understandable by the public, and the permit fee should cover all reasonable direct and indirect costs of the permitting program.
>
> Real-time collection and reporting of plant emissions and harmful side effects should be mandatory. Daily real-time measurements of air and water quality in Waukegan and adjacent communities should be shared weekly with the media and reported in Lake County newspapers, radio and *TV* with comparisons of data from recent years.

Response: Real-time, monitored data for ambient air quality across the country, including northeastern Illinois, is available from USEPA's AirNow internet site.[7] Lake County is also one of the sectors in Illinois for which the Illinois EPA routinely computes Air Quality Index data to provide the public with a simple assessment of the current air quality and the air quality that is forecast for the next day. This data is intended to enable people, especially individuals who are sensitive or very sensitive to air pollution, to appropriately adjust their daily activities.[8]

For the coal boilers at the Waukegan Station, continuous emissions monitoring is conducted for SO_2 and NOx. Continuous monitoring is also required for opacity.[9] Midwest Generation is required to submit a variety of reports to the USEPA and/or Illinois EPA for the data collected by these monitoring systems, as well as other reports about the operation and compliance status of these

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[7] **https://www.airnow.gov/.**

[8] **For more information on the Air Quality Index program refer to Section 3 of one of the Annual Air Quality Reports issued by the Illinois EPA. http://www.epa.illinois.gov/topics/air-quality/air-quality-reports/index. Other information about current air quality is also available on the Illinois EPA webpage. http://www.epa.illinois.gov/topics/air-quality/outdoor-air/index**

[9] **For example, in its opacity report for the first quarter of 2016, Midwest Generation reported that only Boiler 8 operated during this quarter, for a total of 508 hours, and there were no exceedances of the applicable opacity standard.**

boilers. Copies of these reports are available to the public from USEPA and/or the Illinois EPA under either the federal or state Freedom of Information Acts.

2. New Applicable Clean Air Act Requirements

Comment 8:

A number of comments expressed concern that the emission control requirements in new rules have not been imposed on the Waukegan Station because these standards were not included the revised draft CAAPP permit, which are consolidated into this single comment for purposes of the response.

> The main point is that I'm opposed the permit as drafted. I implore Illinois EPA to go back and include critical air quality standards issued since 2006 and propose an up-to-date permit. The final permit should also include the most stringent requirements for monitoring and reporting of emissions so that Waukegan and communities across the county are adequately protected from harmful pollution, whether it goes into the air, to the water. It's real important.
>
> I am here to ask the Illinois EPA to amend the permit so that it includes the higher air quality standards put in place since 2006, and to approve an updated permit quickly so that the community will be able to know the plant is engaging in the more timely monitoring, recordkeeping and reporting necessary to ensure that it stays within current environmental law.
>
> We know that sound laws have been passed since 2006. We want to make sure that those laws are enforced in Waukegan. This community is mostly Latin, low-income community, a community of environmental justice; however, Waukegan is a community that is suffering because of an old and filthy coal power plant, and with a permit that has no expiration date. That is not fair.
>
> It is time for the Illinois EPA to enforce the Clean Air Act with an up-to-date permit with clear strong limits on pollution that the Waukegan Station smoke stacks put out every day. I further urge that operating permits be issued speedily and with the utmost stringency from state and federal laws created since 2006, such as the multi-pollutant standard, the Clean Air Interstate Rule, the Mercury and Air Toxics Rule, and updates to the national ambient air quality standards regarding a one-hour limit for sulfur dioxide and nitrous oxide releases.
>
> This permit, in its current form, is unacceptable as drafted. It is outdated, and it fails to set strong enough requirements for monitoring to adequately protect our communities.
>
> The fact that this has taken so long to get to the operating permit is bad enough, but then to use the permit draft from nine years ago, without bringing the permit up to date with respect to current regulations, seems unconscionable.
>
> I oppose this permit, and I ask that you issue a new one that is strong and incorporates up-to-date standards that adequately protect our communities and our health.

I would like to see is this permit be as strong as possible, include current standards, and this permit needs to be issued as promptly as possible and implemented immediately, because we have waited way too long for this.

I just want to say that this is not an issue about "let's make a great world." It is a matter of law and expecting a business that operates in Illinois to operate according to the laws of Illinois; but the Illinois EPA has to make sure that happens, or come as close as possible for that to happen. So this is about a draft permit that is not making that happen, and I appeal to you to make it happen, or come as close as possible to reducing the massive pollution that this plant is causing and causing severe health impairment to thousands and thousands of people.

I implore you to insist that the Waukegan Station operate within its operating permits which are up to date, in their criterion and to enforce those permits. Permits that are not enforced are rendered meaningless.

This permit was actually applied for in 1995. So, it was 20 year ago that this plant applied for a permit. I can't believe 20 years later and an operating permit is not in place, and I oppose this as drafted. This permit is weaker than it was, and it needs to have current standards included. Since we have had to wait since 2006, it should have the absolute most recent standards included.

I am appalled that Waukegan Station has been running for more than a decade without an updated operating permit, as required by the Federal Clean Air Act. Clearly given the poor quality of our air, and the negative health effects that can be attributed to it, we need to have a permit in place, and it needs to be stronger than the draft that is under consideration this evening.

It is long past time we stop subsidizing corporate profit margins at the expense of our health, quality of life and ultimately with our tax dollars. It is 2015, and we know better. Therefore, I ask that the Illinois EPA redraft this permit to include the current air quality standards, and stronger inspections, monitoring and recordkeeping protocols to ensure compliance.

Tonight we have an opportunity and an obligation to act on behalf of our children and our communities. The draft permit in consideration tonight is out of date, and it's only covering critical measures through the year 2006, before my second graders were even born.

I am asking on behalf of my second graders that you make this operating permit as strong as you can. Put real teeth into it for my second graders. Make Midwest Generation accountable to us. We have all suffered enough.

Midwest Generation has been operating without a proper permit for nearly 10 years. Why would families move to Waukegan, if you approve this permit that only meets outdated 2006 standards?

It is as simple as this: Cleaner air means a healthier community and more prosperous future for everyone in it. It seems there should be no question about providing a permit for this plant that requires it to function in a way that is the least damaging to the community around it.

A clear meaning of the Clean Air Act and of the Illinois legislation dictates the need for a stronger permit that really regulates. Of course the plant operator does not want to be regulated and they negotiate, but we need a negotiator on behalf of the people who live in Waukegan and elsewhere in Lake County, and I appeal you to please step up and do a good job for environmental protection in Illinois and particularly in Waukegan.

The emissions from the Waukegan Station are largely unregulated and cause health problems. The plant operator is being allowed to break the law blatantly and continually and has been allowed to do so for far too long. Please require Midwest Generation to upgrade the Waukegan Station to bring it into compliance with current emissions control standards. There is no other approach that follows Illinois and Federal law, as well as conscientious action.

The Illinois EPA should scrap this draft permit. Waukegan residents are ready to do what we need to do, just like in Chicago, to have our clean air.

The standards in the draft permit are from 2006. Why is Illinois EPA not proposing to issue a permit based on 2015 standards? What laws allow Illinois EPA to issue a permit based on standards from ten years ago?

What options other than accepting the lenient supposed permit that Illinois EPA wants to issue do Waukegan residents have?

The Waukegan Station should be shut down or at the very least brought into compliance with the strictest and most recent USEPA guidelines. It is unthinkable that it would be allowed to operate under any other guidelines. It is the responsibility of the Illinois EPA to protect the water and air quality in Waukegan and the health of the public. I hope that the Illinois EPA's decision to issue the Waukegan Station permit ref1ects that responsibility.

It is obvious from the facts cited in the draft revised CAAPP permit and at the public hearing that this permit should not be issued as currently written. The requirements of the draft permit are several years out of date.

The Waukegan Station has been operating without such a permit. Now the Illinois EPA issues a Title 5 permit with 2006 standards. This is unacceptable. The permit should be up to date, and include air quality standards since 2006. The League of Women Voters requests that the Illinois EPA stay strong and unambiguous to control requirements in its permit for the Waukegan Station. The permit must include strict requirements for monitoring, inspections, and periodic reports to assure the public that the plant is in compliance.

For the last ten years, it appears the Waukegan Station has not been adequately monitored and held accountable for daily emissions of soot and toxic substances into the atmosphere and lake. As was brought forth in testimony at the public hearing, this has adversely affected the health of many families in Waukegan, Zion and nearby communities. They suffer from acute asthma and related illnesses. The poor quality of our air and lake water is a public health issue in northern Illinois and across the

state line. The Waukegan Station needs to be held in strict compliance with the federal Clean Air Act.

Response: These comments incorrectly assume that certain regulatory requirements for control of emissions adopted after 2006 are not applicable to the Waukegan Station because they are not addressed in the CAAPP permit. However, sources must comply with newly-adopted requirements by the applicable compliance dates regardless of whether those requirements are addressed in a Title V or CAAPP permit. Sources are also subject to enforcement if they do not comply with such newly adopted requirements.

In the case of the Waukegan Station, as discussed, Midwest Generation has taken, and is taking, actions to comply with new emission control requirements adopted after 2006. Most notably, it has permanently shut down one of the units at this station so that it now only has two coal-fired boilers, and has added new pollution controls to these remaining coal-fired boilers.

As also discussed, because the CAAPP permit that has now been issued for the Waukegan Station serves to resolve an appeal of a permit that was issued in 2006, this permit generally only addresses regulatory requirements in effect as of 2006. The only exception is the requirements of the Compliance Assurance Monitoring Rule, 40 CFR 64, which were triggered for the emission of particulate matter from the coal-fired boilers because a revised CAAPP permit was being issued. However, the CAAPP permit that has now been issued is now being reopened so that new requirements since 2006 will also be addressed in the CAAPP permit for the Waukegan Station.

Comment 9:

As background, the Statement of Basis stated that the 2006 permit appeal to the Illinois Pollution Control Board by Midwest Generation resulted in the permit being stayed. This, in turn, prevented the CAAPP Permit from being amended to address new rules and emission standards that have been established since 2006. The Illinois EPA has acknowledged that it has the ability to bring the Waukegan Station into compliance with the up-to-date rules, regulations and standards through re-opening the permit once it's issued and through permit revisions. The Illinois EPA also stated in the Statement of Basis document that this process will begin immediately following issuance of the pending permit.

The Lake County Health Department (LCHD) requests that the compliance process not only start immediately following the issuance of the permit but that it be given a high priority and the necessary resources to meet the objective as soon as possible. The LCHD also requests that the Illinois EPA pursue permit revisions for any requirements related to monitoring activities, empirical data collection and reporting timeframes that the Illinois EPA believes were detrimentally diminished through the negotiated settlement process.

Response: As already discussed, the Waukegan Station is subject to and must comply with all emission standards and requirements that are currently applicable even though certain new requirements have not been actually addressed in the revised CAAPP permit. At the same time, the Illinois EPA appreciates the importance of expeditiously completing the reopening of the CAAPP permit so that it also addresses these new requirements that have been adopted since 2006. This will make it apparent to all that the Waukegan Station is subject to and must comply with these requirements.

In the reopening proceeding, it would be contrary to the principle of settlement to revisit requirements for monitoring, recordkeeping and reporting that were the subject of the appeal and were resolved with the issuance of the revised CAAPP permit. Moreover, the resolution of the appeal by means of the revised permit did not result in these requirements being diminished to the detriment of compliance. As discussed in the Statement of Basis, in many cases, the revised requirements correct errors in the initial permit. In some cases, the revised requirements reflect alternative approaches that will also reasonably serve to facilitate or assure compliance. Finally, as some requirements for monitoring, recordkeeping and reporting were relaxed, material effects on actual compliance are not expected.

Comment 10:

Several comments conveyed concerns about the adequacy of emission control equipment in place at the Waukegan Station, several of which relate to newer regulatory requirements and which are consolidated into this single comment for purposes of response:

> Since NRG Energy Midwest Generation took over this old dirty coal plant, they made the minimal reductions to its SO_2 and NOx emissions, the bare minimum. Communities like Waukegan and Zion deserve more than the bare minimum. Our children, our communities, and our families deserve to be protected to the fullest extent.
>
> SO_2 controls installed are just the minimum required. The plant does not have top-quality NOx controls to lower ozone pollution or the strongest controls to deal most effectively with small particulates.
>
> To add to that, as has been mentioned, Waukegan is a community that has been disproportionately burdened with pollution. That is unacceptable, and in my opinion it is exacerbated by the lack of modern pollution controls that this plant should have.
>
> The SO_2 controls recently put in were not the highest quality to meet the highest standards. Is reporting available yet for percentage reduction for $S0_2$?
>
> I implore the Illinois EPA to relook at this plant. If this plant is not necessary, close it. If it is necessary, put the controls in it that are going to keep our air clean. That's all we ask. If the plant will operate, operate it cleanly. If you can't fix it, because it's an old plant, that plant has been there since I was a kid, so it's pretty old, that doesn't mean it can't be fixed. I am an engineer by trade. So fix it or close it. It is that simple.
>
> I just want to say please take this seriously. This is not progress. Jobs, we do need jobs, but we need to work in balance with the manufacturing community. Everybody isn't going to move away. So we have to work together, and there are better ways for the environment and for our health, than this business as usual.
>
> Midwest Generation has installed minimal pollution controls for SO_2. It does little to nothing to control emissions of nitrogen oxides and carbon dioxide.

Midwest Generation should be required to upgrade the Waukegan Station so that it is in compliance with the emission control standards currently in effect.

Allowing the Waukegan Station to continue polluting at this rate for all these years is disgraceful and has affected many lives through serious respiratory disease and through heavy metals that fall from the air into Lake Michigan and are known to cause irreversible neurological damage in those exposed. The Illinois EPA should do its job and protect the people and the environment by requiring much higher standards in the permits it issues. I do understand that the job is frequently one of difficult choices, but this one is a no-brainer. There is no reason to allow this pollution to continue in this day and age.

Response: The control equipment on the coal-fired boilers at the Waukegan Station has been upgraded to comply with the control requirements that currently apply. Since February 2006 when the initial CAAPP permit was issued for the station, Midwest Generation has installed dry sorbent injection systems for control of SO_2 on both Boilers 7 and 8. To reduce emissions of particulate matter and mercury, it has upgraded the electrostatic precipitator for Boiler 7 to "cold-side" operation," like the precipitator on Boiler 8.[10, 11] Midwest Generation has also permanently retired the Unit 6 boiler.

These upgrades originated as a consequence of Midwest Generation's obligation to comply with new emission standards and control requirements that were adopted and now apply to the boilers at the Waukegan Station. Further, these changes to the boilers were not minimal changes and cost millions of dollars. These actions have resulted in substantial reductions in the emissions of the Waukegan Station.

The Illinois EPA did not have the authority to require more extensive changes through the construction permits that it issued for these improvements to the control systems on the boilers. This is because requirements for control of emissions of existing sources are adopted by laws and through rulemaking. The purpose of air pollution control permits for existing sources is to facilitate and ensure compliance with the adopted emission standards and control requirements.[12]

Comment 11:

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[10] Improvements to the control equipment for Boiler 7 are addressed by Construction Permit 10090034, last issued December 20, 2013. The improvement for Boiler 8 are addressed by Construction Permit 13120007, issued April 18, 2014.

[11] Midwest Generation has also installed activated carbon injection systems on the two boilers for control of mercury emissions, as addressed by Construction Permit 07050007, issued July 19, 2007.

[12] The Illinois EPA is not able to judge the degree to which Midwest Generation's investments in pollution controls exceed the costs minimally needed to meet regulatory requirements. However, reductions in electricity use by consumers due to energy efficiency, the current availability and cost of natural gas, and developments in wind power make the future uncertain for many coal-fired power plants. This is compounded by uncertainty about what will be needed to meet future regulatory requirements that are adopted to reduce emissions of carbon dioxide from existing power plants, including USEPA's Clean Power Plan. These considerations could potentially have a chilling effect on the power plant industry in general, leading to investment decisions designed to only meet present requirements and preserved flexibility for how future requirements will be met.

I represent the local media. I am a program director for EBN, a local radio station. I interviewed a representative of the Sierra Club and several other people regarding this. I'm here as a representative of the media, but also as a mother and a health advocate. This is quite disturbing to me. I've been controlling my anger, but the sense is that the Illinois EPA knows about this. This is not anything new. We're all here. We are all like parents. We're all repeating the same thing in the sense of information that you already know. When will the assault stop? Our air is contaminated. When does it stop? This is my question. This is not fantasy. This is not a game. We're talking about our children's health. I do things to prevent my children from mercury contamination. We don't eat fish from Lake Michigan. We eat extremely healthy. We eat organic as much possible.

All of this is also an expense that I think for once a corporation will think of its community and not its bottom dollar. I think we would see a difference. This is about a moral conscience that I strongly feel that the corporations do not take into account. And I want to say, with all due respect, I don't really think you deserve the respect, due to the fact, what I'm hearing about the permit is unbelievable, considering a permit that's not even up to date, allowing a plant to be functioning for so many years. If you are not going to do anything, just say it. It's just really that simple.

Response: The Illinois EPA has taken appropriate actions to reduce emissions from the Waukegan Station. This has occurred as the Illinois EPA proposed new State rules, 35 IAC Part 225, to the Pollution Control Board and supported their adoption by the Board.[13, 14] These rules required reductions in the emissions of SO_2, NOx and mercury from the Waukegan Station. These rules are the reason why Midwest Generation was required to shutdown Boiler 6 at the Waukegan Station and to make significant improvements to the emission control systems on the other two coal boilers. As already discussed, Midwest Generation has been subject to the applicable requirements of these rules, as well as other new requirements adopted since 2006, even though these requirements have not yet been addressed in a CAAPP permit for the Waukegan Station. In this regard, imposition of significant new requirements for control of emissions from existing sources occurs through rulemaking not through permitting. The role of a CAAPP permit is to facilitate compliance with adopted requirements.

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[13] There have been several rulemaking proceedings before the Board for 35 IAC Part 225. The original proposal was filed with the Board in March 2006 and docketed as proceeding R2006-025. This rule required measures be implemented to reduce mercury emissions from Illinois' coal fired power plants. It also resulted in new requirements for the overall average emission rates for SO_2 and NOx, in pounds per million Btu of heat input, for the collection of power plants or systems operated in Illinois by Midwest Generation, Dynegy and Ameren. System-wide emissions were addressed because the objective of the rule was to achieve overall reductions in emissions as they contributed to background levels of air quality on a regional basis. However, with respect to the Waukegan Station, 35 IAC 225.294(b)(1)(A)(i) specifically required shutdown of Boiler 6 by December 31, 2007 since it was not required to install equipment for control of mercury emissions. In 2008, in R2009-010, revisions were made to 35 IAC Part 225 to address delays in development of measurement technology for mercury emissions. In 2015, in R2015-021, 35 IAC Part 225 was revised to provided that coal-fired boilers that were converted to natural gas could not be considered when determining compliance with the system-wide emission limit for SO_2.

[14] As new rules for control of the emissions of power plants need to be adopted, the Illinois EPA will also propose such rules to the Board. For example, in R2015-021, the Board recently adopted rules proposed by the Illinois EPA to bring the Pekin and Lemont areas into attainment for a new 1-hour ambient air quality standard for SO_2 adopted by USEPA. These rules include more stringent emission standards for the SO_2 emissions of the coal-fired power plants in these areas.

However, applicable requirements are still enforceable even if they are not addressed by the CAAPP permit.

3. Permitting Process

Comment 12:

There are serious deficiencies with the process that the Illinois EPA has undertaken to issue a legally functional CAAPP permit for the Waukegan Station. Illinois EPA is proposing to put into place until 2020 a CAAPP permit that omits many legally applicable requirements, based on an application submitted more than *twenty years ago* and an initial permit that should have expired in 2011, five years after it was first issued. This has left unacceptable gaps in the permit's conditions. The Statement of Basis notes that the USEPA expressed concern in a similar CAAPP permit appeal that Illinois EPA's stated intent to reopen the permit "lacks a sufficiently enforceable commitment."

We share USEPA's concern. Illinois EPA's statement that it "considers the reopening provision to constitute an unambiguous statutory duty on the part of [Illinois EPA] that is fully enforceable under the CAAPP" addresses but does not fully resolve that concern. The Illinois EPA has, to date, finalized significant modifications to Title V permits for five of Illinois' coal-fired power plants (i.e., the Coffeen, CWLP, Kincaid, Powerton and Newton plants), that, like the CAAPP permit for the Waukegan Station, had been stayed before the Board for almost a decade. The Illinois EPA has not yet completed the promised process of permit reopening for any of those permits. Illinois EPA's implementation of the Title V program for Illinois' coal-fired power plants remains seriously deficient. A more appropriate process for the Waukegan Station would have been a full-scale permit renewal. A permit renewal would have been more consistent with and supported by the CAAPP and the timelines provided by Title V of the Clean Air Act.

Response: The Illinois EPA's objective in this permitting action has been to achieve permit effectiveness and resolve the related CAAPP permit appeal for the Waukegan Station. The legal process for doing so is set forth in the CAAPP's procedures, which the Illinois EPA is obligated to follow.[15] The

[15] **There are three steps in this process for the settlement of the appeal that have been agreed to by the Illinois EPA and Midwest Generation. The initial step to achieving the goal of having the Waukegan Station addressed by and subject to an appropriate CAAPP permit was initiated with the public comment period for the draft revised CAAPP permit, followed by review of a proposed revised CAAPP permit by USEPA. The implementation of these procedures, which are reflected in the CAAPP's requirements for a significant permit modification, had to be followed in order to resolve, consistent with the terms of the parties' settlement, the more substantive appeal points raised in the administrative appeal. Minor points of the appeal were addressed in parallel permit proceedings. The Statement of Basis supports the permitting action for those challenged conditions of the CAAPP permit that could be appropriately addressed using the significant modifications procedures of the CAAPP.**

The second step was recently concluded before the Pollution Control Board (Board). The Illinois Attorney General and Midwest Generation filed a joint motion with the Board requesting that the administrative stay be partially lifted to allow for modification of the initial CAAPP permit. The joint motion included a request for remand of the permit to the Illinois EPA so that it could be dated to reflect a full five-year term, as required under the CAAPP. The Illinois EPA incorporated new dates to the initial CAAPP permit contemporaneous with this action. Midwest Generation is expected to seek dismissal of its appeal in the near future.

The third step in the settlement of the appeal will be the formal reopening of the CAAPP permit for the Waukegan Station using the procedures for reopening of CAAPP

Illinois EPA disagrees that there are deficiencies with the process set forth in the applicable laws and rules. However, if any such deficiencies with the process exist, it is a product of the statutory and/or regulatory framework of the CAAPP permitting program, which largely derives from the Clean Air Act and federal regulations implementing the same, and cannot be cured by way of this permitting action.

As explained in the Statement of Basis that accompanied the draft revised CAAPP permit, the Illinois EPA did exercise limited discretion in choosing between the procedures available under CAAPP to accomplish the goals identified above. To be more specific, the Illinois EPA declined to initiate a comprehensive review of the initial CAAPP permit, as doing so would have delayed resolution of the appeals and prolonged the period during which the Waukegan Station would continue to operate without an effective CAAPP permit. It would also have been repetitious for a large body of the permit that was not challenged in the appeal. The Illinois EPA quickly concluded that the permit renewal process, as suggested by the comment, would not be viable. Permit renewal is not a legal option in the present circumstances, as this process is available after an initial CAAPP permit has been issued and taken effect.[16]

The Illinois EPA opted instead to use the CAAPP's modification procedures to make the CAAPP permit for the Waukegan Station effective and to resolve the related appeal. This decision reflected a considered judgment of the Illinois EPA, following consultation with the Attorney General's Office and USEPA, as to the most expeditious path to achieve permit effectiveness and appeal resolution for all of the coal-fired power plants. Further, in recognizing that the initial 2006 permit does not currently reflect recent regulatory developments, the Illinois EPA has committed to reopen the permit to incorporate Clean Air Act requirements that have become applicable since 2006 when the initial permit was issued.[17, 18] Although those requirements have been and will continue to be independently enforceable, the permit reopening that will include those requirements in the CAAPP permit responds to the concern expressed in this comment regarding perceived gaps in the CAAPP permit.[19, 20]

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permits. In this final step, new requirements under the Clean Air Act that have been adopted since the initial permit was issued, which are now applicable to Waukegan Station, will be added to the permit.

[16] As a result of the administrative stay of the initial CAAPP permit, the initial CAAPP permit did not become effective, necessitating the modification procedures used here by the Illinois EPA.

[17] Condition 5.9 of the revised CAAPP permit provides that the "The Permittee shall promptly submit information to assist the Illinois EPA in a reopening of the CAAPP permit in accordance with Section 39.5(15)(a)(i) of the Act and 35 IAC 270.503(a)(1)…"

[18] The comment correctly observes that the inclusion of new applicable requirements to the CAAPP permit for this source is a long time in coming, given that the original application was submitted to the Illinois EPA in 1996 and the appeal was filed in 2006. But as explained above, the delayed timing is a by-product of both the litigation process that enveloped the utility appeals beginning in 2005 and the Title V framework for implementing revisions to permits. It can be noted that there were no notable gaps with respect to the underlying permit application; the original submission from September 7, 1995, was supplemented in June 2003 and included a comprehensive list of updated changes.

[19] As already mentioned, the "new" applicable requirements for the Waukegan Station that will be added to the CAAPP permit include requirements of recently adopted federal rules, including the Cross State Air Pollution Rule (CSAPR) and the Mercury and Air Toxics Standards (MATS), and limits set by construction permits issued since 2006. Other

Comment 13:

Why has the Illinois EPA not reissued this permit in over ten years?

Response: As discussed, the Illinois EPA, with the assistance of the Attorney General's Office, has been working with Midwest Generation to resolve the appeal that stayed the permit issued in 2006. Progress in resolving the appeals of the initial CAAPP permits through settlement was initially slow. Following lengthy deliberations concerning the process for resolving the appeals, which began in 2011 and included consultations with legal and technical staff of the USEPA, the plants, and certain environmental advocacy groups, settlement discussions between the sources and the Illinois EPA, represented by the Illinois AG, began in earnest in 2012.

Settlement discussions initially focused on issues common to all of the plants. Later, attention turned to issues presented by the appeals for specific plant(s). These efforts required resolution of over fifty individual points of appeal that Midwest Generation raised on the initial permit. Work specifically for the Waukegan Station began in February 2015 with the preparation of a working draft of a revised permit, reflecting negotiated changes to the common appeal points reached earlier by the parties. The public comment period began in July and ended in October 2015. Since then, the Illinois EPA has been engaged in the review of comments submitted during the public comment period, changes to the draft permit and the development of this document. USEPA submitted two sets of informal written comments on the draft permit, one during the public comment period and one earlier this year.

Finally, it must again be noted that the Waukegan Station has been required to comply with all applicable air pollution control requirements even though it has not been covered by a CAAPP permit.

Comment 14:

I am representing myself as a resident of Lake County and someone with respiratory issues, as well as the mother of a child with asthma, and also speaking on behalf of Midwest Sustainability Group, formerly Incinerator for Lake County. I'm grateful to the Illinois EPA and the important work it does. It is the firewall between us, the people, and the polluters. I, along with all of my colleagues who advocate for healthy communities and environmental protection, have supported, and continue to support, more funding for the Illinois EPA. That said, I believe that the Illinois EPA's efforts with respect to this source, and this permit in particular, have fallen far short of the mark. I realize that Illinois EPA has a funding shortfall that leaves it unable to stay current with permit renewals, but taking nine years to get to an operating permit for an old dirty coal plant, which is by far the major polluter in a county that has very poor air quality, and a county that has also a higher-than-normal pediatric asthma rate, is unacceptable and unfair to the surrounding community and to the people in the surrounding air shed.

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requirements will be included as determined during the reopening to be applicable requirements for purposes of the CAAPP.

[20] At this time, two reopening proceedings for previously-resolved appeals are in the early stages of public notice. The initial development of draft permits, Statements of Basis and parallel permit actions for the two plants is expected to reduce the time needed to prepare the same documents for the remaining plants, including the Waukegan Station.

Given the backlog of permit renewals, when will the next opportunity be to bring these permits up to date with clean air regulations? At this pace, it could be another decade before the Illinois EPA is able to just bring the permit up to today's standards.

Response: With the issuance of an effective CAAPP permit for the Waukegan Station, as has now occurred, the difficult task of getting a CAAPP permit in place for this source has been accomplished. The reopening proceeding to address new requirements in the permit should proceed much more quickly. The incorporation into the permit of new regulatory requirements, with which Midwest Generation must already comply, should be a much simpler task than resolving the details of the initial CAAPP permit that were appealed.

Comment 15:

Illinois EPA improperly allowed at least one private entity to give input on Statements of Basis for Illinois coal plants. Under federal law, "[t]he *permitting authority* shall provide a statement that sets forth the legal and factual basis for the draft permit conditions (including references to the applicable statutory or regulatory provisions)." 40 CFR 70.7.(a)(5) (emphasis added). In the State of Illinois, Illinois EPA issues a Statement of Basis to meet the requirements of this federal regulation. In Illinois EPA's Statements of Basis, it justifies its determinations on facilities, including its discretionary decisions.

However, a review of documents requested by the Sierra Club under the Freedom of Information Act (FOIA) revealed that private entities, including Midwest Generation, Dynegy, Southern Illinois Power Cooperative, Dominion/Kincaid, and lawyers from Schiff Hardin, were involved in the behind-closed-door reissuance process for Illinois CAAPP permits. One document obtained under the FOIA was a June 2015 draft of Waukegan Station's Statement of Basis that included comments and markups from a Schiff Hardin attorney. *See* "Schiff Hardin LLP Draft" Statement of Basis (June 3, 2015). This private-sector involvement in drafting the Waukegan Station Statement of Basis does not comport with federal law and is improper. Under the Code of Federal Regulations, Illinois EPA, as the permitting authority must issue the Statement of Basis. This document is *not* intended to be a vehicle for private entities to bolster arguments for their preferred regulations. There are other times, such as during the public comment period, when permittees and other private entities can make such arguments. Giving industry this level of access undermines the public's trust in Illinois EPA's ability to represent the best interests of the residents of the State of Illinois, and issue safe and unbiased permits.

Illinois EPA must modify its conduct when drafting Statements of Basis by excluding private industry from providing feedback on Statements of Basis before other members of the public have access to this same documentation. I have several questions about Midwest Generation's and its representatives' level of involvement while drafting the CAAPP permit for Waukegan Station and the permit's Statement of Basis. How many times did Midwest Generation and its representatives meet with Illinois EPA staff to discuss the draft CAAPP permit and the permit's Statement of Basis? What feedback did Midwest Generation and its representatives provide on the draft CAAPP permit's Statement of Basis? Did Illinois EPA incorporate any of Midwest Generation's and its representatives' feedback into the draft CAAPP permit's Statement of Basis? If Illinois EPA did incorporate any of Midwest Generation's and its

representatives' feedback into the draft CAAPP permit's Statement of Basis, what specific feedback did Illinois EPA incorporate?

Response: As an initial matter, the Illinois EPA does not engage in a "behind-closed-door reissuance process" for CAAPP permits. When sources file administrative appeals of CAAPP permits, it is common for the sources and/or their attorney to engage in discussions with Illinois EPA personnel to reach an understanding of the appeal issues and evaluate the possibility of resolution by settlement. Such discussions, whether occurring in person, by phone or by email, usually only include the parties to the appeal (i.e., the source and/or their attorney and the Illinois EPA and its attorney) and exclude everyone else. Nothing in applicable law prohibits such settlement communications.[21]

The actual process of revising a CAAPP permit, and thus achieving the desired result when it is determined that settlement of an appeal is appropriate, is subject to CAAPP's procedures, including public participation and USEPA review. In this instance, as well as in other power plant appeals recently settled, the Illinois EPA's implementation of the CAAPP program has fully complied with these procedures.

The preparation of a Statement of Basis, as discussed by this comment, is one of the administrative requirements of the CAAPP that applies to the Illinois EPA. In conjunction with the preparation of a draft CAAPP permit, the Illinois EPA must prepare a Statement of Basis that sets forth the "legal and factual basis" of the draft permit conditions, and send this document to USEPA and to any other person requesting it. *See,* Section 39.5(8)(b) and 9(a) of the Act. A Statement of Basis is not part of the CAAPP permit; however, it provides insight into the Illinois EPA's rationale for a planned CAAPP permit action.

The development of a Statement of Basis usually takes place after a preliminary draft of the CAAPP permit has been prepared or is well developed. In the case of a resolution of an appeal of a CAAPP permit, the preliminary draft of the CAAPP permit reflects the agreed-upon revisions to the permit between the Illinois EPA and the appealing source. Tentative drafts of both the permit and the Statement of Basis are shared with the source (or its attorneys) prior to release of the draft permit for public comment. This practice helps identify mistakes, ambiguities or possible areas of remaining disagreement between the Illinois EPA and the source concerning the contents of the draft of a revised permit and associated Statement of Basis. This is an especially important element of the appeals resolution process, as both the Illinois EPA and the source want to avoid creating issues that might give unnecessarily rise to a subsequent appeal. In this instance, Midwest Generation was concerned that its reasons for appealing the initial CAAPP permit and the basis for settlement be fairly portrayed.

Similar to the settlement discussions, as addressed above, nothing in applicable state or federal law prohibits the Illinois EPA from sharing a draft Statement of Basis with a source that has appealed its CAAPP permit. Similarly, there is nothing to suggest that such a practice, which is closely analogous to the sharing of a preliminary draft permit with a permittee, is improper.[22]

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[21] **Although neither interested parties nor the general public actively participate in such negotiations, it is evident that the process is not without some transparency. This is shown as records released by the Illinois EPA in response to a cited Freedom of Information Act request undoubtedly formed the basis for this comment.**

[22] **Interestingly, the wording from this comment appears to mimic an argument presented in a petition for objection filed with USEPA in 2000. *Petition requesting that the***

The comment correctly observes that the Illinois EPA must prepare a Statement of Basis and provide a copy to anyone who requests it. By fair implication, it can be said that a permit authority cannot assign the prerogative of overseeing this duty to another. In this instance, the Illinois EPA prepared a preliminary Statement of Basis and, for the sake of facilitating settlement of the appeal, presented it to a CAAPP appeal litigant for review and comment. The mere act of sharing the document did not negate or diminish the Illinois EPA's authority to ultimately determine the contents of the document. Moreover, a comparison of the comments received by Midwest Generation's attorneys and the resulting changes by the Illinois EPA to the document does not reveal anything deceptive or untoward. Otherwise, comments generally focused on factual and grammatical corrections.

4. Environmental Justice Considerations

Comment 16:

The draft CAAPP permit for Waukegan Station as it currently stands cannot be approved because Illinois EPA has failed to carry out its own policies regarding Environmental Justice (EJ) for the City of Waukegan. The Illinois legislature passed the Environmental Justice Act to help ensure that "no segment of the population, regardless of race, national origin, age, or income, should bear disproportionately high or adverse effects of environmental pollution…" 415 ILCS 155/5(i) (2011). Waukegan has been recognized as an environmental justice community that, compared to the rest of the State of Illinois, has disproportionately suffered from environmental health hazards. Illinois EPA has recognized this fact explicitly in its Statement of Basis, noting that "[t]he area in which the source is located has been identified as posing a potential concern for consideration of Environmental Justice." (Statement of Basis at 11). And the conclusion is consistent with Illinois EPA's environmental justice definitions: under Illinois EPA policy, "a 'potential' [environmental justice] community is a community with a low-income and/or minority population greater than twice the statewide average." (Illinois EPA, *Environmental Justice (EJ) Policy* (accessed Sept. 14, 2015)). According to the 2010 U.S. Census, 78.3 percent of the people living in Waukegan are minorities, compared to 36.3 percent of the people living in Illinois, statewide. As the proportion of the population in Waukegan that are minorities is more than twice the State average, Waukegan qualifies as an environmental justice community under state guidelines.

Response: The Illinois EPA acknowledges the important goals, as cited by the comment, sought to be achieved by both the state Environmental Justice Act, 415 ILCS 155/5(i)(2011), and the Illinois EPA's own policy statements regarding

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Administrator object to the final Title V permit issued to Kings Plaza, Total Energy Plant, **Permit ID: DEC 2-6105-00301/00010. In that instance, the petitioner had commented that the draft permit was not accompanied by a Statement of Basis, which the permit authority countered by stating that the permit application and draft permit aptly set forth the legal and factual basis of the permit conditions. The petitioner argued that the application and draft permit are not appropriate "vehicles for the type of information that should be provided in the statement of basis" and that a permit authority cannot simply rely upon statements therein as a substitute for "its own statement." The USEPA Administrator subsequently denied the petitioner's alleged deficiency concerning the Statement of Basis on mootness grounds. *See, In the matter of Kings Plaza, Total Energy Plant,* Petition Number: II-2000-03, August 26, 2004. The context here is decidedly different, as the Illinois EPA created the preliminary Statement of Basis and merely relied upon supporting justifications, both technical and legal, that were discussed by the parties during settlement.**

environmental justice (EJ). The former was created by the state legislature in 2011 establishing a Commission on Environmental Justice, which, among other things, advises State entities, and reviews the adequacy of current State laws and regulations, on issues concerning environmental justice. The latter was developed in 2005 in the wake of a settlement resolving a formal complaint filed before the USEPA's Office of Civil Rights, which had alleged discriminatory effects from the Illinois EPA's permitting of a waste-to-energy and recycling facility. The EJ policy statements, consisting of *EJ Policy* and the *EJ Public Participation Policy,* are available on the Illinois EPA's website at http://www.epa.illinois.gov/topics/environmental_justice/index.

The policy statements focus on the role of the EJ officer of the Illinois EPA, the EJ Work Group and the Office of Community Relations in matters relating to environmental justice. As outlined in the documents, the Illinois EPA's EJ efforts are generally indicative of two things. One is a voluntary commitment by the Illinois EPA, both inherent in its administrative authority and set out within the framework of existing environmental rules and regulations, to promote and implement opportunities for public participation in environmental decision-making, including permitting and rulemaking. The second is a legal obligation to ensure that, as a recipient of federal funding from USEPA, the Illinois EPA evaluate and address EJ considerations arising during the permitting process, consistent with the requirements of Title VI of the Civil Rights Act of 1964.

Waukegan is clearly an EJ area, meeting commonly-accepted criteria developed under federal guidance. To this end, the Illinois EPA implemented elements of its public participation strategy, as described in more detail below. It should be noted that the Illinois EPA's commitment to implement its policy statements operates side-by-side with the administration of its permitting programs. However, as the policy statements are not directly incorporated into existing laws or regulations that govern the requirements to obtain a CAAPP permit, they cannot form the basis for denial of this permit, as suggested by the comment.

Comment 17:

Contrary to Illinois EPA's environmental justice policies, we are aware of few, if any, meetings held between community members and either Illinois EPA or Midwest Generation to discuss the draft CAAPP permit. It is the policy of Illinois EPA's Office of Community Relations to hold small group meetings in an affected environmental justice community "[f]or any permit action requiring public notice and for which [Illinois EPA] receives a request for public hearing." (Illinois EPA, *Environmental Justice (EJ) Policy*). Even if Illinois EPA did not receive a request for a public hearing, it would have made no sense for someone to place such a request given that Illinois EPA already scheduled a public hearing on the same day that the draft CAAPP permit was made available for public comment. Contrast this to the numerous meetings Illinois EPA had, upon information and belief, with Midwest Generation in preparing this permit. Therefore, Illinois EPA should have held at least one small group meeting with Waukegan community members.

Response: In fact, the Illinois EPA EJ policy statements do not commit the Illinois EPA to hold a "small group meeting" in the affected EJ community "for any permit action requiring public notice and for which the Illinois EPA receives a request for public hearing." The *EJ Policy Document* provides:

> **For any permit action requiring public notice and for which the Illinois EPA receives a request for public hearing, Community Relations *often holds* "small group" or "living room" meetings in the affected community [emphasis added].**
> ***EJ Policy Document,* Approaches/Strategies to Address and Coordinate EJ Activities, Small Group Meetings.**

Rather than compel the scheduling of a small group meeting, the statement cited by the comment simply describes a frequently-used option available to the Illinois EPA whenever it receives a request for a hearing. When read in context, the *EJ Policy* document indicates that the Illinois EPA will tend to favor a small group meeting in lieu of a formal informational hearing.[23] This is partly due to the costs and resources needed to conduct an informational hearing but also explains why the smaller group forum is believed to allow for "more time to address specific issues of concern." The format of an informational hearing will generally tend to cover a broader range of topics reflecting the views and/or concerns of a larger group of individuals.

In this instance, the Illinois EPA forwarded an initial notice to interested persons concerning the planned permit action for the source. On July 8, 2015, Kenneth Page, EJ Officer for the Illinois EPA, sent a letter notifying governmental officials and interested parties[24] of the potential permit action in the area. This EJ notification letter advised that a draft permit would be prepared, and that a public comment period and a hearing would be held to solicit comments. Although the Illinois EPA received inquiries relating to the subject of the comment period and hearing, it did not receive a request for additional enhanced outreach. Moreover, as contemplated by the comment, it would not have been the best use of resources for the Illinois EPA to entertain the notion of a small group meeting at a time when the decision to hold a public hearing had already been announced.[25]

In addition to providing EJ notification concerning the planned permit action, the public notice for the comment period and hearing was published in bi-lingual formats and the public repository contained a copy of the Statement of Basis translated into Spanish. A translation service was also contracted for by the Illinois EPA and provided simultaneous translation from English into Spanish for participants at the public hearing.

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[23] **This section of the *EJ Policy Document* goes on to describe the benefits of a small group meeting as distinguished from an informational hearing, and it is immediately followed by a separate discussion on informational hearings, including the factors considered by the Director of the Illinois EPA in determining whether to schedule an informational hearing in a permit proceeding.**

[24] **The mailing list consisted of a list of interested and potentially-affected citizens developed by the Illinois EPA's Office of Community Relations at that time, including numerous non-governmental organizations represented at the subsequent public hearing.**

[25] **An underlying concern of the comment seems to be that the Illinois EPA held more meetings with the source during the development of the negotiated permit than it did with non-governmental advocacy organizations or the public. The frequency of settlement meetings needed to resolve an administrative permit appeal, which is an outgrowth of a litigation process rather than the traditional permit process, can sometimes be significant. But that process is separate from the question of how the Illinois EPA should make the best use of everyone's time and resources in fulfilling its permitting and EJ-related obligations. Here, the Illinois EPA elected to afford the public an opportunity to present questions or comments to the draft permit through a formal hearing instead of a meeting format.**

The Illinois EPA did not hold a small group meeting with non-governmental organizations or the public concerning this matter. The Illinois EPA also did not discuss with Midwest Generation the possibility of outreach by the company, and the Illinois EPA is not aware of whether any meetings took place between Midwest Generation and community stakeholders. Admittedly, the Illinois EPA did not implement every optional component of the community outreach procedures set forth in the policy statements, as such means of outreach are not and need not be universally applied in all cases. However, this should not diminish the outreach efforts, as described above, that were undertaken.

Comment 18:

According to Illinois EPA, small group meetings in environmental justice communities "encourage[] greater participation and candid dialogue, and more time can be spent addressing the issues of concern." *Id.* These small group meetings would have filled a void left by the September 2, 2015 CAAPP permit hearing, which hosted over 100 attendees and did not give participants an opportunity for an actual discussion. Illinois EPA responded to none of the concerns while they were being expressed at the time of the hearing. In fact, the Hearing Officer's introductory statements discouraged oral public comment and he directed members of the public multiple times to not provide oral comments if they would be repetitious of other commenters. In short, in one of the few instances in which community stakeholders had an opportunity to engage with Illinois EPA on the permit, public dialogue regarding the permit was discouraged. Furthermore, it is Illinois EPA's policy to encourage permit applicants "to meet with community stakeholders to promote open dialogue early in the permitting process for appropriate permitting actions." (Illinois EPA, *Environmental Justice Public Participation Policy*, (accessed Sept. 14, 2015)).

Response: The purpose of the public hearing was to accept oral comments. This purpose was stated in the notice for the hearing and by the Hearing Officer at the start of the public hearing. It was also explained at the hearing that written comments would be taken through the close of the comment period and that the Illinois EPA, through this document, would respond to comments and issues raised in the hearing and in written comments.

While the hearing panel did not respond with specific answers to comments raised at the hearing, it is not an uncommon occurrence for panel members to defer responses by the Illinois EPA until the issuance of the responsiveness summary.[26] Additionally, a review of the hearing transcript does not reveal that the panel's treatment of comments was a calculated effort to be either dismissive or deprive the public of information. Rather, the transcript reads as though comments were simply being presented for the hearing record. This is in keeping with the format of a proceeding that is designed to create a written record, i.e., a transcript of oral comments and copies of hearing exhibits, which, in turn, are considered by an agency in the decision-making process.[27]

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[26] In many instances, the staff representing the Illinois EPA at a public hearing may be unable to provide responses to questions without conducting additional research or analysis or consulting with other staff who are not present at the hearing. In other instances, the ebb and flow of a hearing may govern how a panel reacts to public comments. Commenters that directly ask the panel to respond to a question or comment may be more apt to generate a response than comments that appear to be presented rhetorically or "for the record."

[27] The format of a public hearing is in distinct contrast to that of a small group meeting. A small group meeting does not feature the formalities of an orderly procession of comments and a transcript. These difference are why the Illinois EPA

The hearing officer, in his introductory remarks, did ask hearing participants to avoid comments if they would be repetitious with earlier comments. This does not mean that public comments were "discouraged" by the hearing officer. Such statements are routine for a hearing officer, who is assigned the task of ensuring that all participants are afforded a right to be heard during the hearing. In this instance, the hearing drew a large, public gathering and provided for a simultaneous translation in Spanish for audience members, both factors that could potentially have affected the pace of the hearing.[28] It would not have been an abuse of the hearing officer's discretion to have limited repetitious or non-topic (i.e., outside the scope of the permitting action) comments in order to facilitate an orderly and timely hearing.[29]

Comment 19:

Illinois EPA has also failed to disseminate information about the draft CAAPP permit for Waukegan Station in other ways beyond failing to have meetings. It is Illinois EPA's policy that, when appropriate, it prepare and distribute fact sheets as a part of its environmental justice outreach strategy. (Illinois EPA, *Environmental Justice (EJ) Policy* (accessed Sept. 14, 2015)). These fact sheets should be available on Illinois EPA's webpage or via a link from its webpage. (Illinois EPA, *Environmental Justice Public Participation Policy*, (accessed Sept. 14, 2015)). Fact sheets should "provide a *plain language summary* of the major aspects of the proposed project, including the purpose and location of the proposed activity and facility, and any anticipated environmental impacts, and any controls or work practices that will limit those impacts." *Id.* Given the circumstances here, it indisputably would have been appropriate for Illinois EPA to make fact sheets that pertain to the draft CAAPP permit available. Waukegan is a city with nearly 90,000 residents whose health and wellbeing are affected by the plant. As far as the commenters can discern, however, Illinois EPA has only made available the Statement of Basis, the draft permit, the hearing notice, the hearing transcript, and a comment period extension notification. All of these documents were listed on Illinois EPA's webpage for general public notices. None of these documents would meet the description of a "fact sheet" because they have either no substantive information, or information that is far too complicated for the majority of community members to comfortably discern. The hearing notice, the hearing transcript, and the comment period extension notification contain little to no substantive information regarding the content of the draft permit. Conversely, the Statement of Basis is 79 pages long and the draft permit and its attachments are 156 pages long, and both documents are highly technical. These documents can hardly be considered "plain language summar[ies]" and are far too lengthy and technical to be considered "fact sheets." Thus to better educate

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generally believes that a meeting "encourages greater participation and candid dialogue" by the participants. The conversational element of a small group meeting is probably not replicable in the hearing format, which may be a necessary trade-off for a permit proceeding that is afforded an informational hearing, especially when a large number of people then attend the hearing.

[28] **In actual fact, the simultaneous translation did not materially prolong the hearing as most comments were made in English. The translation of those comments, as well as statements by the Illinois EPA into Spanish, was made available to individuals who wanted the translation by wireless headsets and did not delay the actual course of the hearing. However, the efficiency with which simultaneous translation would take place was not known at the start of the hearing.**

[29] **It should be noted that while the Hearing Officer expressed a cautionary note against repetitious comments, he did not strike or reject any comments made during the course of the hearing on that same basis.**

the public on the process followed here, has Illinois EPA created any fact sheets pertaining to this permit? If so, where can the public access these fact sheets?

Furthermore, it is Illinois EPA's policy to encourage permit applicants to disseminate information beyond the meetings that the applicants are encouraged to hold. Illinois EPA officially encourages permit applicants to "develop a Community Relations Plan to structure ongoing dialogue with neighboring communities." *Id.* Also, it is Illinois EPA's stated policy to encourage applicants "to provide notice to residents located in and around a defined EJ area about the pending permit application and the proposed project, and to provide basic information about the project to interested residents."

Response: The policy statements do generally preserve the Illinois EPA's option, as part of its community outreach procedures, of preparing fact sheets that provide a "plain language summary" of basic elements of a proposed project. *See, EJ Public Participation Policy,* Section V(D), page 3. As discussed by the comment, the policy statements provide an available option of encouraging a permit applicant to engage the community about its project and to develop a Community Relations Plan for facilitating on-going dialogue with affected communities. *Id.* The selection of the various options identified in the document is determined by the Illinois EPA on a case-by-case basis. As set forth in Section V(B), it is within the discretion of the Illinois EPA to determine the "appropriate outreach" for "appropriate permit actions" based upon relevant considerations, including the type of permit sought, the environmental impact and public interest. The Illinois EPA did not and was not required to counsel Midwest Generation to undertake separate outreach efforts.

The Illinois EPA also did not prepare a stand-alone "fact sheet" for the planned permit action. This was because of the nature of this permit proceeding, which largely addressed negotiated revisions to the finer points of periodic monitoring, and the fact that the Waukegan Station is an existing source. The Illinois EPA will consider fact sheets for future CAAPP proceedings for Illinois' coal power plants to facilitate understanding by the public of the nature and context of those proceedings.

Comment 20:

It is also Illinois EPA's policy that "when concern is expressed or identified regarding potential environmental impacts in an environmental justice area, [Illinois EPA] will look at the information provided and other available information to assess whether there are potential significant adverse environmental impacts." (Illinois EPA, *Environmental Justice (EJ) Policy* (accessed Sept. 14, 2015)). Is such an assessment conducted specifically to address environmental justice concerns? If so, we request that Illinois EPA conduct this assessment.

Because the Waukegan Station is located in an EJ Community, the Illinois EPA was obligated, by its own policies, to fully engage with the local community above and beyond its normal obligations. If Illinois EPA's answers to the above questions demonstrate that this process did not occur, then it needs to revisit this permit. The Illinois EPA should not issue a revised CAAPP permit without first following its own policies on environmental justice.

Response: The EJ policy document referenced by the comment contemplates a risk assessment or other type of evaluation being conducted as a result of a determination that a permit action may pose "potential significant adverse

environmental impacts." *See, EJ Policy, Approaches/Strategies to Address and Coordinate EJ Activities*, paragraph (3) at page 7. Such an assessment would be conducted specifically to address environmental impacts, including impacts to human health.

In this instance, the Illinois EPA is not convinced that public comments or other available information sufficiently indicate that the power plant presents a significant risk to individuals living in Waukegan or neighboring communities. Although a number of public comments expressed concerns regarding the power plant being a potential cause of asthma, there is no evidence to suggest that air quality in the area is linked primarily to the Waukegan Station, let alone that the plant is a significant factor in asthma or asthma attacks.

Comment 21:

I was raised here in Waukegan. I studied sustainable community development and minored in sociology and social justice. I am just one individual representing the 76 percent of Latino and African-American residents in Waukegan. This is a class. This is a race. This is an environmental issue. These three things are all connected looking at inequality. We have talked about asthma issues, and my whole entire family suffers from and it still continues here. I have heard people say, you know, "I have a harder time breathing at night." Obviously because there is a lot going on in this town because of class, race and environmental issues. Because we are minorities so we are allowed to be used by Midwest Generation to just abuse our race, and this is a public health issue.

Response: The claims made in this comment are unfounded. Midwest Generation has proceeded responsibly to upgrade the control systems on the coal boilers at the Waukegan Station as needed to comply with new air pollution control rules that now apply to the plant. These actions for the Waukegan Station are similar to the actions that have been taken, or are being taken, at other large coal-fired power plants in Illinois.

5. Emission Standards and Limitations

Comment 22:

The Waukegan Station has two coal-fired boilers, Boiler 7 and Boiler 8. Conditions 7.1.4(b)(i) and (ii) subject these boilers to hourly average particulate matter ("PM") emission limits of 0.10 and 0.12 lb/mmBtu of actual heat input for Boiler 7 and Boiler 8, respectively. These are the limits from 35 IAC 212.201 and 212.203, which are part of Illinois SIP.

As noted in the Statement of Basis, the Compliance Assurance Monitoring (CAM) rule, 40 CFR Part 64, is applicable for the boilers' PM emissions due to Midwest Generation's submission of an application for significant modification of conditions related to the boilers. (See Statement of Basis at 7) (citing 40 CFR 64.5(a)(2)). The draft Significant Modification would include a new condition, Condition 7.1.13-1, that would provide the Illinois EPA's conditional approval of the CAM plan submitted by Midwest Generation, as further described in draft Tables 7.1.13a and 7.1.13b. The proposed CAM plan would require monitoring of the operation of the PM control devices, the electrostatic precipitators ("ESPs") on the boilers. (*See* Table 7.1.13a and 7.1.13b) ("Opacity less than [*]% averaged over a 3 hour block period is an indicator of proper ESP operation and provides reasonable assurance of meeting the 0.10 lb/mmBtu or 0.12 lb/mmBtu PM limits.").

The sole proposed indicator for the proper operation of the ESPs is the opacity in the flue gas streams in the stacks for the boilers. The opacity of the flue gas streams is measured by continuous opacity monitoring systems ("COMS") installed in the stacks. Illinois EPA proposes that the indicator range, in order to provide a reasonable assurance of compliance, be based on the percentage of opacity measured by the COMS, averaged over three-hour block periods. (*See*, Draft Revised CAAPP Permit, Tables 7.1.13a and 7.1.13b). The proposed plan does not specify the percentage of opacity that would trigger responsive actions for the boilers, but instead requires Midwest Generation to perform "PM emissions testing" within 120 days of the issuance of the revised permit, and then submit an application for a proposed modification "to incorporate information for the opacity derived from testing." (Conditions 7.1.13-1(b)(i) and (ii)). The permit does not specify how opacity is to be correlated with PM emissions, though. According to the Statement of Basis:

> [T]esting for PM emissions will be conducted to determine appropriate indicator ranges for assuring compliance with the PM emissions limit under various operating conditions for the boilers. Testing will determine the upper limit of opacity, as measured in the flue gas stream, which assures compliance with the PM limit.
> Statement of Basis, at 52

There are two central problems with the CAM plan's proposed approach to monitoring the operation of the ESPs for the coal-fired boilers at the Waukegan Station. First, the CAM plan does not reflect an acceptable procedure for setting an opacity indicator range to assure proper operation of the ESP. Second, the CAM plan does not include monitoring of any other parameters of ESP performance.

Response: The CAM Plan submitted by Midwest Generation satisfies the criteria and requirements in 40 CFR 64.3 for the plan to be "conditionally" approved in accordance with 40 CFR 64.6(b). In particular, these comments do not demonstrate the parameter chosen (opacity) and the future establishment of a corresponding indicator range fail to fulfill the criteria in 40 CFR 64.3(a) for CAM Plans. This comment also does not show that the CAM Plan submitted by Midwest Generation for the coal-fired boilers at the Waukegan Station is not "conditionally approvable."

In addition, 40 CFR Part 64 does not compel all sources to identify a "procedure" or "procedures" in developing an indicator range for opacity or other selected indicators of emission control performance. The CAM rule generally provides that a source must establish "an appropriate range(s)" for an indicator in accordance with designated objectives in 40 CFR 64.3(a)(2) and the requirements and criterion of 40 CFR 64.3(a)(2) and (3). In accordance with 40 CFR 63.4(d)(1), Midwest Generation has submitted a test plan and schedule for obtaining data to fulfill the operating parameter data requirement from emissions testing under 40 CFR 64.4(c)(1). This test plan and enforceable schedule is included in the permit as Conditions 7.1.13-1 of the revised permit. A separate provision in the CAM rules addressing the submission of "procedures for establishing indicator ranges" is not applicable, as the source has opted to rely upon emission testing rather than engineering assessments and other data, as part of its monitoring submittal, See 40 CFR 64.4(d)(2).

Comment 23:

To issue a legally sufficient CAM plan, Illinois EPA "must explain how the indicator range in the CAM plan provides a reasonable assurance of ongoing compliance with the underlying PM limits in accordance with 40 CFR 64.3(a)(2)." *In the Matter of WE Energies Oak Creek Power Plant*, EPA Administrator Order at 18 (June 12, 2009). The permit record here contains no such explanation, and no clear description of how the opacity indicator range will be derived. What is clear, though, is that the range would be based on three-hour block averages. This is inconsistent with the underlying PM limit, which has a one-hour averaging period. The CAM plan must include a procedure for setting an opacity indicator range that will yield a range reflecting the proper operation and maintenance of the ESPs, with an ample margin of compliance with the hourly PM emission limit.

At the most, the Statement of Basis only implies that acceptable opacity ranges will extend to "the upper limits of opacity ... which assures compliance with the PM limit." (Statement of Basis at 52). This approach does not comport with the CAM rule. The CAM rule is *not* premised on identifying and selecting the most extreme indicator range under which a source can avoid violating an emission limit. Instead, the CAM rule provides that indicator ranges "shall reflect the proper operation and maintenance of the control device (and associated capture system), in accordance with applicable design properties, for minimizing emissions over the anticipated range of operation conditions at least to the level required to achieve compliance with the applicable requirements." 40 CFR 64.3(a)(2). The basic approach of the CAM rule is to determine what parametric indicator ranges reflect the proper operation and maintenance of the relevant pollution control device, and to make sure that the permit holder promptly addresses any deviation from those ranges with responsive actions. In this manner, compliance with the associated emission limit is assured because operational problems that otherwise would cause violations are promptly corrected. By contrast, requiring responsive action only if there is an exceedance of the "upper limit of opacity" at which one can be sure that there is no PM violation is not in line with the CAM rule's purpose, and would not yield responsive action until a violation likely already had occurred.

Deficiencies in Midwest Generation's data regarding the correlation between PM and opacity are further reinforced by the permit record. The record contains a CAM plan chart that says for unit 8 "data provides very little aid in establishing a sufficient correlation between opacity and PM." (Midwest Generation CAM Plan: Waukegan Station, March 4, 2013.) As recently as May of 2015, Illinois EPA indicates that it still has insufficient data regarding the correlation between PM and opacity by asking Midwest Generation for "recent testing that may have been completed that would compare PM and opacity" for the Waukegan Station. (Email from Doug Rutherford to Andrew Sawula, "Statement of Basis – Waukegan Station CAAPP Permit" (May 1, 2015).)

Describing indicator ranges generally, USEPA has stated that selected ranges "should be indicative of the normal operating range under good operation and maintenance practices". USEPA, *Technical Guidance Document: Compliance Assurance Monitoring*, *Revised Draft* (Aug. 1998), at 2-27. As USEPA recognized in the preamble to the CAM rule, this approach can lead to the setting of indicator ranges well below the "upper limit" of the indicator that would assure compliance with the monitored emission limit:

> The Agency understands that many sources operate well within permitted limits over a range of process and pollution control device operating parameters. Depending on the nature of pollution control devices

> installed and the specific compliance strategy adopted by the source or the permitting authority, part 64 indicator ranges may be established that generally represent emission levels *significantly below* the applicable underlying emission limit. (62 FR 54,907)

USEPA also has directly addressed the issue of setting opacity indicator ranges in CAM plans designed to assure compliance with PM emission limits at coal-fired power plants, making clear that a margin of compliance is necessary in setting an opacity indicator range. USEPA, *Compliance Assurance Monitoring (CAM) Protocol for an Electrostatic Precipitator (ESP) Controlling Particulate Matter (PM) Emissions from a Coal-Fired Boiler, Proposed* (Apr. 2003) ("ESP CAM Protocol"). The ESP CAM Protocol provides:

> You will establish the opacity indicator range at a level equal to or less than an opacity at which the source has demonstrated a margin of compliance with the PM emissions limit of at least 10 percent at normal operating conditions ... . *You should not select an opacity higher than the maximum opacity you observed during the calibration test program*.

In sum, setting an opacity range based upon the highest opacity range that could assure compliance with the applicable PM emission limit is inconsistent with the CAM rule's requirement to assure the "proper operation and maintenance" of the control device. 40 CFR 64.3(a)(2)

An additional consideration in setting an opacity indicator range for the coal-fired boilers at the Waukegan Station is that the upper bound should be well below the boilers' opacity limit of 30 percent. According to the Statement of Basis, based on preliminary data analysis by Illinois EPA, "compliance with the PM standard is reasonably assured if the opacity of emissions from the boilers does not exceed 30 percent on a 3-hour block average." (Statement of Basis at 22) Logically, compliance with PM standards is then not reasonably assured if opacity exceeds 30 percent on a 3-hour block average. When opacity standards represent a likely exceedance of PM standards, opacity levels below those standards should be selected as a CAM indicator. As USEPA noted in the preamble to the CAM rule,

> Opacity standards are often established at a level which represents a likely significant exceedance of the particulate matter standard. In those circumstances, an opacity level below a required opacity standard would be more appropriate as a CAM indicator. (62 FR 54,923)

As such, the opacity indicator range for the boilers at the Waukegan Station should be set well below the applicable opacity limit of 30 percent, pursuant to 35 IAC 212.123.

The opacity indicator range also should be based on opacity averaged over no longer than a one-hour period. The CAM rule provides that a CAM monitoring program must "[a]llow for reporting of exceedances (or excursions if applicable to a COMS used to assure compliance with a particulate matter standard), consistent with any period for reporting of exceedances in an underlying requirement." 40 CFR 64.3(d)(3)(i). In this case, the Illinois SIP provides that the applicable averaging period in the underlying PM emission limit is hourly. 35 IAC 212.202.

Therefore, the CAM plan must provide for reporting of opacity excursions on an hourly basis. Measuring opacity over a three-hour averaging period cannot assure compliance with an hourly standard.

Accordingly, the Illinois EPA must revise the CAM plan to set out a method that will yield an hourly opacity indicator range that reflects proper operation and maintenance of the ESP, including an ample of margin of compliance from the PM emission limit.

Response: The Illinois EPA disagrees with the points raised in this comment. 40 CFR 64.3(d)(1) provides that if a continuous opacity monitoring system is required for a subject unit by other rules, such system shall be used to satisfy the requirements of 40 CFR Part 64. While limits or standards for opacity commonly address average opacity over a period of six minutes, based on a number of individual measurements or readings during such period, opacity can also be determined for shorter or longer periods, including on a three-hour average, as proposed by Midwest Generation in its CAM Plan for the coal-fired boilers at the Waukegan Station. Analysis of test data for PM emissions and opacity data for coal-fired boilers shows that compliance with a PM limit of 0.1 lb/mmBtu, as applicable pursuant to 35 IAC 212.202, is reasonably assured if the opacity on a three-hour average is no more than 30 percent. This does not mean that opacity greater than 30 percent, three-hour average, indicates that an exceedance of the PM standard would be likely. The CAM Rule does not require that a value or indicator range be determined that would be indicative of a definitive violation of the applicable standard.

For state emission standards for which emission testing must be conducted to measure emission rates and verify compliance, it is reasonable that the nominal duration of such measurements be used as the compliance period or averaging time over which compliance with such standard is determined. This is because the PM emission rate can only be measured with a reasonable degree of confidence by emission testing. Since emission testing to verify compliance with 35 IAC 212.202 generally consists of three runs, as provided for by 35 IAC 283.210,[30] and each run nominally lasts one hour, the compliance period for 35 IAC 212.202 in actual practice is three hours.

Finally, USEPA did not state as a general matter that any approved indicator range should not exceed the maximum opacity observed during performance testing. USEPA made this statement in the specific context of its ESP CAM Protocol. This Protocol would rely on a computer model to calculate the PM control efficiency for the ESP. This Protocol actually states (as quoted in the comment) the opacity indicator that would trigger the use of the computer model should not exceed the value that was used during the calibration of the model. This would be appropriate as the computer model would not be developed to address higher levels of opacity, for which the model had not been calibrated.

Moreover, a more careful reading of USEPA's preamble for the adoption of the CAM Rule shows that USEPA determined that the CAM Rule will act to support or facilitate the proper operation and maintenance of emission units and their control devices by sources. This is because the CAM Rule requires that indicator ranges be established that provide a reasonable assurance of compliance with the applicable emission limitations or standards.[31] It is relevant that USEPA focuses upon the demonstration of

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[30] **Similar provisions for averaging of test results are found in federal rules, see 40 CFR 60.7(f) and 40 CFR 63.7(e)(3).**

[31] **As explained by USEPA in the preamble to the adoption of the CAM Rule,**

compliance made for an emission unit without any mention of "proper operation and maintenance" of control devices. As specifically related to the establishment of indicator ranges for purposes of CAM, USEPA stated the following.

> **…the presumptive approach for establishing indicator ranges in part 64 is to establish the ranges in the context of performance testing. To assure that conditions represented by performance testing are also generally representative of anticipated operating conditions, a performance test should be conducted under conditions specified by the applicable rule or, if not specified, generally under conditions representative of maximum emission potential under anticipated operating conditions. In addition, the rule allows for adjusting the baseline values recorded during a performance test to account for the inappropriateness of requiring that indicator conditions stay exactly the same as during a test. The use of operational data collected during performance testing is a key element in establishing indicator ranges; however, other relevant information in establishing indicator ranges would be engineering assessments, historical data, and vendor data. Indicator ranges do not need to be correlated across the whole range of potential emissions.**
> **62 FR 54,926 (Oct. 22, 1997)**

In addition, with respect to indicator ranges and proper operation and maintenance, the CAM Rule only provides that:

> **…Such range(s) or conditions(s) shall reflect the proper operation and maintenance of the control device (and associated capture system), in accordance with applicable design properties, for minimizing emissions over the anticipated range of operation conditions at least to the level required to achieve compliance with the applicable requirements. …**
> **40 CFR 64.3(a)(2)**

These examples point to the underlying assumption that there is a reasonable assurance of compliance with emission limits so long as the emission unit is operated under the conditions anticipated and the control equipment that has been proven capable of complying continues to be operated and maintained properly. In most cases, this relationship can be shown to exist through the performance testing without additional site-specific correlation of operational indicators with actual emission values. The monitoring design criteria in Sec. 64.3(a) build on this fundamental premise of the regulatory structure.

Thus, Sec. 64.3(a) states that units with control devices must meet certain general monitoring design criteria in order to provide a reasonable assurance of compliance with emission limitations or standards for the anticipated range of operations at a pollutant-specific emissions unit. These criteria mandate the monitoring of one or more indicators of the performance of the applicable control device, associated capture system, and/or any processes significant to achieving compliance. The owner or operator shall establish appropriate ranges or designated conditions for the selected indicators such that operating within the established ranges will provide a reasonable assurance of compliance for the anticipated range of operating conditions. The requirement to establish an indicator range provides the objective screening measure to indicate proper operation and maintenance of the emissions unit and the control technology, i.e., operation and maintenance such that there is a reasonable assurance of compliance with emission limitations or standards.
62 FR 54918 (Oct. 22, 1997)

Comment 24:

Pursuant to 35 IAC 212.123 and 212.124, opacity exceedances of two 6-minute averaging periods constitute violations of the SIP's opacity and PM emission limits. Further, 35 IAC 212.123(b) imposes a 24-minute average (a limit on opacity exceeding 60 percent in three consecutive 8-minute periods). This indicates that the intent behind 35 IAC 212.123 was to create a short term limit that should not be averaged over more than a 12-minute period.

Response: The observations in this comment are not relevant to the compliance time period of either the opacity or PM emission standard that is applicable to the coal-fired boilers at the Waukegan Station. As 35 IAC 212.109 provides that observations of opacity by a human observer are to be made in accordance with USEPA Method 9, the compliance period for the opacity standard in 35 IAC 212.123(a) is a 6-minute average. Arguably, the compliance period for the alternative opacity standard in 35 IAC 212.123(b) is 24 hours, as 24 hours of opacity data may be needed to determine compliance with this standard.[32] Certainly, neither standard applies on a 12-minute average as suggested by this comment. Moreover, given the disparity in compliance periods, it is unclear how an exceedance of either of these opacity standards would necessarily constitute credible evidence of a violation of a PM standard for which the duration of emission testing to measure PM emissions is nominally three hours.[33]

Comment 25:

Illinois EPA should revise the CAM Plan to include monitoring of other parameters of ESP performance in addition to opacity. Specifically, pursuant to USEPA guidance, the CAM plan should include monitoring of voltage and current for each ESP field.

In the ESP CAM Protocol, USEPA described the difficulties of using opacity as an indicator for PM emissions, in general, due to the lack of a linear relationship between opacity and PM:

> [O]pacity, a commonly used parameter, can indicate ESP performance. If the opacity is increasing, you can reasonably assume that PM emissions are increasing. What generally is not known on a quantitative basis is the magnitude of the mass emissions relative to any one opacity value or

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[32] Theoretically, the terms of 35 IAC 212.123(b) could allow average opacity from an emissions unit over a 24 hour period to be as high as 30.5 percent. [(3 x 8 minutes x 60% opacity) + (1,416 minutes x 30% opacity)] ÷ 1440 minutes = 30.5% opacity). In this regard, 35 IAC 212.123(b) provides that:

> **The emission of smoke or other particulate matter from any such emission unit may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 305 m (1000 ft) radius from the center point of any other such emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in *any 24 hour period*.**

[33] For an emission unit that is subject to 35 IAC 212.123, as stated in another comment, 35 IAC 212.124(d)(2)(A) provides that a violation of the 30 percent opacity limit in 35 IAC 212.123 presumptively constitutes a violation of the state PM standard that applies to that unit. However, it is not appropriate for the Illinois EPA to discuss the import of 35 IAC 212.124(d) in this Responsiveness Summary as the presumption in this rule is currently the subject of litigation.

> the increase in mass emissions relative to the increase in opacity. In addition, and perhaps most importantly, the relationship between opacity and mass emissions can vary significantly with the particle size distribution and refractive index of the ash particles. The properties of the particulate matter can be influenced by fuel changes and the number and location of ESP electrical sections in service.

Because the relationship between opacity and PM "is not robust over all operating conditions," USEPA's monitoring protocol for CAM plans at coal plants provides that monitoring opacity alone is not sufficient. Instead, USEPA's "presumptively acceptable" approach, *see* 40 CFR 64.4(b)(5), provides that the source also should monitor other ESP operating parameters—specifically, voltage and current for each ESP field—and run a calibrated computer model to calculate ESP efficiency when the opacity excursion level is triggered. *See also* USEPA, *CAM Technical Guidance Document*, App. A.25, *Electrostatic Precipitator (ESP) For PM Control—Facility FF* (June 2002), at A.25-2 (model CAM plan providing that "ESP secondary voltage and current are measured for each field to determine the total power to each ESP"). In order to assure proper operation and maintenance of the boilers' ESPs, Illinois EPA also should require parametric monitoring of voltage and current for each ESP field.

Response: Given the provisions of the CAM rules, it was wholly appropriate for Midwest Generation to have selected opacity as the sole indicator for the performance of the ESPs on the boilers. The fact that Midwest Generation did not include a second parameter, e.g., "corona power" or current, in its CAM Plan does not show that the plan should be found unacceptable. The basic criterion for an acceptable CAM Plan, as specified by 40 CFR 64.3(a), is that the plan will provide "a reasonable assurance of compliance" with the applicable standard or emission limitation. The plan submitted by Midwest Generation meets this criterion. Therefore, inclusion of additional indicators in the CAM Plan is not justified at this time given that the relevant criterion has been satisfied.

This comment does not show that the CAM Plan should include additional indicators for ESP performance. The comment points to USEPA guidance suggesting that the CAM Plan should also address voltage and current for each ESP field. Thus, the addition of corona power is not supported by the comment.

In addition, the comment goes on to state that because of the lack of a linear relationship between opacity and PM, there is not a "robust" correlation over-all operating conditions and thus additional monitoring of other ESP parameters must be included in the Plan. Particularly, the comment relies on: 1) a statement in USEPA guidance regarding the inadequacy of opacity alone, 2) presumptively acceptable monitoring in 40 CFR 64.4(b)(5), and (3) an example in the USEPA CAM Technical Guidance document. Each of these points is not sufficient either alone or in combination to justify addition of a second indicator of ESP performance parameter to the CAM Plan.

With regard to the ESP CAM Example, USEPA clearly indicates in the CAM Technical Guidance Document, Appendix A, that the examples of approaches to CAM that are attached to that document are merely examples and are not prescriptive.[34] As such, the use of corona power in the ESP CAM Example as

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[34] As stated in the introduction to Appendix A (Example Monitoring Approach Submittals) of the *CAM Technical Guidance Document*, "Note that the resulting examples are not

another indicator for performance of an ESP does not mean that opacity, alone, is not acceptable in a CAM plan. Thus, the ESP CAM Example does not address an appropriate approach to CAM for the ESPs on the Waukegan Station boilers, for which continuous opacity monitoring is required. In fact, the "proposed" ESP CAM Protocol referenced in the comment actually suggests just the opposite as it states that "…for any given ESP and boiler, opacity can serve as a very useful indicator to initiate additional action..." In this regard, opacity monitoring is a well-established means to address emissions of PM.[35]

Robust statistics do not require that the value of one parameter will in all cases enable an accurate prediction of the value of a second parameter that is of interest. "Robustness" only requires that the value of the first parameter be sufficient for the purpose for which it is being used. In this case, a robust relationship is present between 30 percent opacity on a 3-hour average and compliance with the applicable PM standard.

Lastly, the fact that a particular approach for CAM has been deemed by USEPA to be presumptively acceptable, does not show the CAM Plan submitted by Midwest Generation is unacceptable. The relevant question for the CAM plan submitted by Midwest Generation for the coal-fired boilers at the Waukegan Station is whether it meets the criteria set out in 40 CFR 64.3. For these boilers, the use of opacity as the CAM indicator will provide an effective and reasonable means of assuring compliance with the applicable PM standard on an ongoing basis, as required by 40 CFR 64.3(a)(1).

Comment 26:

Condition 7.1.13-2 of the draft revised CAM plan sets out the actions that Midwest Generation is to take in response to excursions of the indicator range. Essentially, the plan requires Midwest Generation to "restore operation of the [Boilers] (including the control device and associated capture system) to [their] normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions." Condition 7.1.13-2(c)(ii)(A). This standard does not provide enough detail to assure prompt correction of improper operation, and should be revised to include site-specific description of required responsive actions.

USEPA has emphasized the importance of responsive actions within a CAM plan:

> [T]he Agency believes it is critical to underscore the need to maintain operation within the established indicator ranges. Therefore, the rule includes the requirement to take prompt and effective corrective action when the monitored indicators of compliance show that there may be a problem. Requiring that owners and operators are attentive and respond

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necessarily the only acceptable monitoring approaches for the facility or similar facilities; they are simply examples of different approaches used by particular facilities. The owner or operator of a similar facility may propose a different approach that satisfies part 64 requirements." *CAM Technical Guidance Document*, September 2004, p A-vii.

[35] **Numerical values of opacity can be reliably determined by observations of the exhaust from emission units by individuals who have been properly trained and demonstrated their ability to make such observations in accordance with USEPA Method 9. Numerical measurements of observations can also be made with monitoring instruments that are installed in the stack or ductwork of an emission unit, in which case opacity can be determined on a continuous basis.**

> to the data gathered by part 64 monitoring has always been central to the CAM approach.
>
> * * *
> [I]t is essential to the CAM goal of ongoing compliance operation that part 64 require that owners or operators respond to the data so that any problems indicated by the monitoring are corrected as soon as possible.
> 62 FR 54,931.

One example of effective responsive actions can be found in the Title V permit for the Huntley Steam Generating Station, issued by the New York Department of Environmental Conservation. The Huntley permit incorporates tiered responsive actions for the opacity indicator. (Huntley Permit, at 73-74). Under this approach, increasing levels of opacity trigger requirements of more aggressive responsive actions, culminating with a requirement that the unit be removed from service if rolling 24-hour opacity exceeds 19 percent, or rolling 168-hour opacity exceeds 18 percent.

The CAM plan for the Waukegan Station should include a similarly tiered requirement for responsive action, beginning with inspection requirements at lower levels of opacity, and culminating with required shutdown of the affected boiler at a level near the upper bound of opacity within which compliance with the PM emission limit can be assured. This site-specific description of necessary responsive actions will be more enforceable than the currently vague reference to returning boilers to their normal manner of operation as quickly as possible.

Response: This comment did not justify any changes to draft Condition 7.1.13-2. This condition simply reiterates the relevant language in 40 CFR 64.7(d)(1), which addresses how a source must respond to excursions or exceedances identified pursuant to its CAM monitoring.[36] As such, it is fully appropriate that this condition be included in the issued permit in the form in which it was set out in the draft permit without any changes.

The inclusion of "tiered response requirements" in the Title V Permit for

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[36] **40 CFR 64.7(d) provides:**

> **(d) *Response to excursions or exceedances.* (1) Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.**
>
> **(2) Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.**

the Huntley Station does not support development and imposition of similar requirements for the boilers at the Waukegan Station. A basic question posed by such requirements is whether they are consistent with the basic requirements for a CAM Plan, i.e., that they work to provide a reasonable assurance of compliance. In this regard, it is unclear whether the "Level One" actions required for the Huntley boilers even constitute a response to an excursion or exceedance.[37] Moreover, when an exceedance or excursion is identified, the CAM Plan approved by the permitting authority should not predetermine the source's response based on the magnitude of the occurrence. As confirmed by 40 CFR 64.7(d) (2), the adequacy of a source's response to an exceedance or excursion is to be evaluated by a regulatory authority on a case-by-case basis.[38, 39]

Comment 27:

The CAAPP permit should address how Midwest Generation will ensure that the boilers at the Waukegan Station comply with the Mercury and Air Toxics Standards (MATS), 40 CFR 63 Subpart UUUUU, which was adopted by USEPA in 2011. Although the Illinois EPA granted Midwest Generation a one-year compliance extension for a portion of the MATS rule, most of the requirements went into effect for the these boilers on April 16, 2015. 40 CFR 63.9984(b).

Along with various other HAPs, the MATS rule regulates emissions of non-mercury metal HAPs. For non-mercury metal HAPs, subject coal-fired boilers must comply with either: 1) A limit for filterable PM, 2) Limit for individual non-mercury metal HAPs, or 3) A limit for total non-mercury metal HAPs. The limit for PM emissions is 0.03 lb/mmBtu, or alternatively 0.3 lb/MWh. (40 CFR 63 Subpart UUUUU, Table 2.) For the coal-fired boilers at the Waukegan Station, these PM limits are much more stringent than the current PM emission limit, 0.10 lb/mmBtu. Moreover, the MATS rule also requires continuous PM emission monitoring, a PM continuous parametric monitoring system or quarterly performance testing. (40 CFR 63 Subpart UUUUU, Tables 6 and 7.)

For the coal-fired boilers at the Waukegan Station, the Illinois EPA has not explained how Midwest Generation plans to comply with the MATS rule. This is particularly egregious given the deliberations on the CAM Plan for these boilers. Both the MATS and the CAM rules contain or create requirements related to monitoring of the PM emissions of the boilers. However, the CAM Plan does not address the PM monitoring that Midwest Generation must conduct pursuant to the MATS rule. Therefore, for the Waukegan Station, by when does Midwest Generation intend to comply with the MATS for non-mercury metal HAPs? Does Midwest Generation plan to meet the MATS emissions limits for PM, for individual non-mercury metal HAPs or for total non-mercury metal HAPs? If Midwest Generation plans to comply with the PM limit, how does it intend to demonstrate compliance and how will this impact or interrelate with the

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[37] Condition 72.2.II.2.a of the Huntley permit, addresses "Level One" actions and addresses certain actions that the source must take when "…the 24-hour or 168-hour baseline opacity is higher than normal and increased attention should be given to the operation of the boiler and the ESP performance."

[38] The cited provisions of the Huntley permit also appear problematic as opacity values with two different averaging times are used, i.e., 24 and 168 hours, both of which would be longer than the compliance period of the applicable PM limit, i.e., 0.17 pound/mmBtu, pursuant to 6 NYCRR 227-1.2(b).

[39] As a whole, the provisions of the Huntley permit cited by this comment would suggest that they were additional obligations taken on by a source in the context of settlement of an enforcement action, as they appear to go beyond those necessary for compliance with an applicable emission standard.

proposed CAM Plan?

Response: The questions in this comment are not relevant to the issuance of this revised CAAPP permit for the Waukegan Station, which has now occurred. As already discussed, applicable requirements that took effect after the initial CAAPP permit was issued in 2006 must be addressed in the reopening proceeding for the permit that has now been issued. The MATS rule is one of these post-2006 requirements that will be addressed in this proceeding, for which notice was provided to Midwest Generation when this revised CAAPP permit was issued.

Notwithstanding this fact, Midwest Generation is currently subject to all requirements of the MATS rule except for requirements related to non-mercury metal HAPs, for which it has received a one-year compliance extension.[40, 41] The extension request submitted by Midwest Generation in 2013[42] and revised in 2014 states that it is complying with other requirements of MATS rule that are currently applicable. Midwest Generation has not proposed to incorporate or rely on monitoring conducted under MATS in its current CAM Plan for the PM emissions of the boilers, which plan addresses compliance with the applicable state emission standard, 35 IAC 212.201 and 212.203.[43]

Comment 28:

The provisions of the draft revised CAAPP for periods of startup, shutdown, and malfunction (SSM) of emission units at the Waukegan Station are unlawful. They were unlawful when first adopted and have been made even weaker by the proposed changes to the permit. Collectively, the SSM provisions will effectively allow Midwest Generation to disregard virtually all existing SIP emission limitations for hours at a time during SSM events. The Illinois EPA should not provide explicit allowances for exceedances of SIP emission limitations during SSM periods, or in the alternative at least provide sufficiently stringent and specific conditions on these periods to truly minimize the unnecessary emission that may otherwise occur.

A key problem with the proposed SSM provisions in the permit is that SSM exemptions from SIP emission limitations as a category run contrary to USEPA's current view on allowing exceedances during SSM events, and to

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[40] Section 112(i)(3)(B) of the Clean Air Act provides that an existing source up to one additional year to comply with new requirement of a NESHAP rule if more time is necessary for the installation of controls.

[41] For the coal-fired boilers at the Waukegan Station, for the MATS rule, Midwest Generation requested an compliance date extension pursuant to Section 112(i)(3)(B) of the Clean Air Act to complete upgrades of the ESPs on the boilers and installation of PM continuous monitoring systems. Accordingly, the compliance date extensions issued by the Illinois EPA only addressed provisions of the MATS rule for non-mercury metal HAPs.

[42] Midwest Generation's request for an extension, dated March 5, 2013, states: "All other units for which extensions are requested are fully compliant with the MATS limits for mercury and acid gases that take effect on April 16, 2015."

[43] The indicator or monitoring that is used in the CAM Plan for the coal-fired boilers at the Waukegan Station may need to be reevaluated in the future. This is because 40 CFR 64.3(d)(1) provides:

> **If a continuous emission monitoring system (CEMS), continuous opacity monitoring system (COMS) or predictive emission monitoring system (PEMS) is required pursuant to other authority under the Act or state or local law, the owner or operator shall use such system to satisfy the requirements of this part.**

recent federal case law on the topic, because they undermine the protection of the national ambient air quality standards (NAAQS) and other fundamental requirements of the Clean Air Act. (e.g., *USEPA State Implementation Plans: Response to Petition for Rulemaking; Restatement and Update of EPA's SSM Policy Applicable to SIPs; Findings of Substantial Inadequacy; and SIP Calls to Amend Provisions Applying to Excess Emissions During Periods of Startup, Shutdown and Malfunction*, (May 25, 2015)). In this regard, any exemptions to SIP emission limitations, for whatever reason, are contrary to the Clean Air Act and to USEPA's longstanding policy that SIP emission limitations must apply and be enforceable at all times. The Clean Air Act specifies that SIPs must include enforceable "emissions limitations," and further requires that these "emissions limitations" apply on a "continuous" basis. Clean Air Act Sections 110(a)(2)(A) and (a)(2)(C) and 302(k). Exceptions allowing sources to emit additional pollutants during SSM events by their operation prevent the "continuous" enforcement of emission limits. Thus, they conflict with the plain language requirement of Section 110(a)(2)(A) of the Clean Air Act, as defined by Section 302(k) of the Clean Air Act. Any exemptions also rob USEPA and the public of their enforcement power in violation of the enforcement provisions in Sections 113 and 304 of the Clean Air Act.

Exempting emissions also conflicts with the core purpose of the Clean Air Act. USEPA recognizes its "overarching duty under the [Clean Air Act] to protect public health through effective implementation of the NAAQS." USEPA Memorandum to Docket EPA-HQ-OAR-2012-0322, at 9. Startup, shutdown and malfunction events result in short-term releases of a large amount of pollution, including releases of sulfur dioxide and nitrogen oxides, as well as other toxic and carcinogenic pollutants, in amounts that are many times above the legal limits. *See* Environmental Integrity Project, *Gaming the System: How Off-the-Books Industrial Upset Emissions Cheat the Public Out of Clean Air*, at 5-8 (Aug. 2004). Though there is only a small amount of data on excess emissions events, a 2004 study by the Environmental Integrity Project shows that excess pollution released during SSM events can actually exceed the "normal" annual amount of emissions that sources otherwise report.

In short, continuous and enforceable emission limitations are the only way to ensure protection of ambient air quality standards. As USEPA noted in its new SSM rule, "SIPs are ambient-based standards and any emissions above the allowable [ambient concentration] may cause or contribute to violations of the national ambient air quality standards." USEPA Memorandum to Docket EPA-HQ-OAR-2012-0322, at 9 (citing 1982 SSM Guidance). Continuous and enforceable limits also ensure that sources of emissions continue to have a strong incentive to operate using best practices and to invest in appropriate pollution controls and equipment. 78 FR 12,485.

The D.C. Circuit has held that any affirmative defenses whatsoever against enforcement of SIP emission limitations are inconsistent with the Act. *Natural Resources Defense Council v. E.P.A.*, 749 F.3d 1055, 1063 (D.C. Cir. 2014). In response to this ruling, USEPA also has made clear the unlawfulness of allowing unenforced, unrestricted emissions during SSM in its new SSM rule. In that rule, USEPA states that emission limits apply at all times, including SSM, and no affirmative defenses to enforcement may be employed. USEPA, *State Implementation Plans: Response to Petition for Rulemaking; Restatement and Update of EPA's SSM Policy Applicable to SIPs; Findings of Substantial Inadequacy; and SIP Calls to Amend Provisions*

Applying to Excess Emissions During Periods of Startup, Shutdown and Malfunction, (May 25, 2015, published in the Federal Register on June 12, 2015, 80 FR 33,840).

The revised draft CAAPP permit would violate USEPA's updated SSM requirements in several ways. First, Condition 7.1.3(c) would grant Midwest Generation the authority to continue operating the coal-fired boilers at the Waukegan Station during periods of malfunction despite emissions exceedances, and provides a corresponding affirmative defense to injunctive relief for exceedances during those periods. To be consistent with USEPA's new SSM rule, this condition should not be included in the revised CAAPP permit.

Second, contrary to USEPA's new SSM rule, Condition 7.1.3(b) of the revised draft permit would create a complete bar to enforcement of exceedances during periods of startup, granting Midwest Generation authority to exceed its SIP emission limitations during startup of a boiler. This condition should also not be included in the CAAPP permit for the Waukegan Station.

Third, even assuming an affirmative defense to penalties were lawful (which it is not, as discussed later), the permit would run contrary to published USEPA standards for determining when a source may be eligible for an affirmative defense to statutory penalties. USEPA has published recommended criteria delineating when a source may qualify for an affirmative defense to statutory penalties. *See* Steven A. Herman and Robert Perciasepe, USEPA*, State Implementation Plans: Policy Regarding Excess Emissions During Malfunctions, Startup, and Shutdown,* at 3-4 (Sep. 20, 1999) ("USEPA 1999 Policy"). Those criteria include a test to determine if an event qualifies as a malfunction, which provides that malfunctions must not be part of a pattern or stem from an avoidable event, and must be resolved as quickly as possible while minimizing impacts on air emissions (USEPA 1999 Policy, p. 3-4). USEPA also provides that excess emissions during startup must not be part of a pattern or stem from an avoidable event. (USEPA 1999 Policy, p. 5-6). The draft revised CAAPP permit for the Waukegan Station would deviate significantly from these criteria, opening up the possibility that it might be improperly granted an affirmative defense. For instance, the permit would authorize continued operation of both the coal-fired boilers and coal handling equipment during malfunctions where "necessary to provide essential service or to prevent injury to personnel or severe damage to equipment." *See* Condition 7.1.3(c)(i) and 7.2.3(b)(i). The draft revised CAAPP permit includes no provision requiring that malfunctions not be part of a pattern or stem from an avoidable event, or that they be resolved as quickly as possible while minimizing impacts on air emissions. Similarly, the permit's authorization to exceed emission limits during startup requires only that the applicant take "all reasonable efforts … to minimize startup emissions, duration of individual startups and frequency of startups" (and the revised draft CAAPP permit implements these requirements to the letter of the SIP). *See* Condition 7.1.3(b)(i). Nowhere does the permit require that any exceedances during startup not be part of a pattern or stem from an avoidable event.

Although Illinois EPA's holdings reflect existing provisions in Illinois' current SIP with respect to SSM events, in the SIP Call, USEPA has already found that Illinois's SSM provisions are inconsistent with the Clean Air Act:

> The EPA believes that the inclusion of the complete bar to liability, including injunctive relief, the availability of the defense for violations during startup and shutdown, the burden-shifting effect, and the insufficiently robust qualifying criteria in Ill. Admin. Code tit. 35 § 201.261, Ill. Admin. Code tit. 35 § 201.262, and Ill. Admin. Code tit. 35 § 201.265, are substantial inadequacies and render these specific SIP provisions impermissible. 78 FR 12514-15.

Furthermore, USEPA has subsequently revised its SIP Call to be consistent with *Natural Resources Defense Council v. EPA*, issuing a supplemental notice of proposed rulemaking that explicitly held that any defenses for emission exceedances during SSM events is unlawful:

> [The Illinois SIP] create[s] an impermissible affirmative defense for violations of SIP emission limits. These provisions would operate together to limit the jurisdiction of the federal court in an enforcement action and to preclude both liability and any form of judicial relief contemplated in Clean Air Act sections 113 and 304. *State Implementation Plans: Response to Petition for Rulemaking; Findings of Substantial Inadequacy; and SIP Calls to Amend Provisions Applying to Excess Emissions During Periods of Startup, Shutdown and Malfunction; Supplemental Proposal to Address Affirmative Defense Provisions in States Included in the Petition for Rulemaking and in Additional States: Proposed Rule*, 79 FR 55920 (Sept. 17, 2014).

On May 22, 2015, USEPA finalized these changes, revising its guidance to make clear that affirmative defense provisions are not permissible in SIPs; and issuing SIP calls directing 23 statewide and local jurisdictions, including Illinois, to remove affirmative defense provisions from their SIPs.

Response: This comment does not support the changes to the CAAPP permit for the Waukegan Station that it recommends. As observed by this comment, the appropriate approach to SSM events for SIP emission limitations is a subject that USEPA has addressed in its SSM Rule or "SIP Call." Provisions of approved SIPs are not directly altered by the SIP call. USEPA clearly recognized this provision in the SIP case stating:

> **When the EPA issues a final SIP call to a state, that action alone does not cause any automatic change in the legal status of the existing affected provision(s) in the SIP. During the time that the state takes to develop a SIP revision in response to the SIP call and the time that the EPA takes to evaluate and act upon the resulting SIP submission from the state pursuant to CAA section 110(k), the existing affected SIP provision(s) will remain in place. 80 FR 33840 (June 12, 2015)**

The SIP Call requires appropriate rulemaking by affected states and jurisdictions, not source-by-source actions during permitting. In this regard, as discussed in this comment, USEPA has reconsidered the provisions that address the potential for "excess emissions" during SSM in the SIPs of a number of states and local jurisdictions, including Illinois' SIP. USEPA has now found that many of these existing SIP provisions, including the relevant provisions of Illinois rules dealing

with startup and malfunction and breakdown events, which USEPA had previously approved, are inconsistent with provisions of the CAA.[44] Accordingly, USEPA has issued the SIP Call, which requires those affected states and local jurisdictions to undertake rulemaking to appropriately revise their SIPs so that SSM events are appropriately addressed.[45]

Moreover, the USEPA does not mandate in the SIP Call that the current short-term emission limitations in the affected SIPs be made applicable at all times, as implied by this comment. Rather, the SIP Call requires that SIPs be revised so that they appropriately address SSM events. USEPA recognized that a number of different approaches may be possible and appropriate to address various types of emission units and their possible circumstances. One possible approach recognized by the SIP Call is the adoption of "alternative emission limitations" for SSM events.[46] The adoption of alternative emission limitations, as contemplated by the SIP Call, would be a task that would be carried out through rulemaking. In Illinois, this rulemaking would involve a proceeding before the Pollution Control Board in which the Illinois EPA, the affected sources and interested members of the public could all participate. In other words,

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[44] Illinois' SIP, codified at 35 IAC 201.149, prohibits startup (S) of an emission unit or continued operation of an emission unit during malfunction or breakdown (MB) if such operation would cause a violation of an applicable state emission standard absent express permit authorization. Illinois' process for addressing compliance with state emission standards during SMB is set forth in 35 IAC 201 Subpart I and has two steps. The first step consists of obtaining authorization by means of a permit application to make a future claim of SMB. The second step involves making a viable claim of SMB. For startup, this consists of showing that all reasonable efforts have been made to minimize emissions from the startup event, to minimize the duration of the event, and to minimize the frequency of such events. For MB, this consists of showing that continued operation was necessary to prevent injury to persons or severe damage to equipment, or was required to provide essential services. Inherent in this showing is the obligation to show that operation and excess emissions occurred only to the extent necessary.

Midwest Generation sought SMB authorizations for certain units at the Waukegan Station. The Illinois EPA reviewed these requests and, as appropriate, granted authorizations in the CAAPP permit to make claims of SMB. These authorizations do not equate to an "automatic exemption" from otherwise applicable state standards. These authorizations are fully consistent with long-standing practice in Illinois for permitting and enforcement. In particular, the nature of the coal-fired utility boilers is such that certain excess emissions may occur during SMB that a source cannot reasonably avoid or readily anticipate. However, the source may be held appropriately accountable for any excess emissions that should not have occurred regardless of the authorizations in the CAAPP permit related to SMB. In summary, the provisions in the CAAPP permit related to SMB do not translate into any advance determinations related to actual occurrences of excess emissions. Rather, they provide a framework whereby Midwest Generation is provided with the ability to make a claim of SMB, with the viability of any such claim subject to further review.

[45] Parallel with its SIP Call related to SSM events and its work with affected states and other jurisdictions on revisions to their SIPs, USEPA is also committed to undertaking rulemaking to revise a number of emission standards that it adopted. These standards must also be revised so they appropriately address emissions during SSM.

[46] For purposes of the SIP Call, an alternative emission limitation is

> **… an emission limitation in a SIP that applies to a source during some but not all periods of normal operation (e.g., applies only during a specifically defined mode of operation such as startup or shutdown). An alternative emission limitation is a component of a continuously applicable SIP emission limitation, and it may take the form of a control measure such as a design, equipment, work practice or operational standard (whether or not numerical).**
> **80 FR 33842 (June 12, 2015)**

while it is correct that certain provisions of Illinois' SIP dealing with SMB events have now been found by USEPA to be inconsistent with the Clean Air Act, altering these regulatory provisions must proceed through the rule of law. As such, the proper response is rulemaking to correct the now-identified flaw in these provisions that were the result of earlier rulemaking. The SIP call will not affect the requirements of this CAAPP permit until after Illinois acts to develop and put into place revisions to Illinois' SIP that respond to the SIP call. [47]

It is also noteworthy that the SIP call is not based on a quantitative evaluation by USEPA of the impacts on ambient air quality of extra emissions during SSM events. Rather, the SIP call is based on a reassessment of the language of the Clean Air Act by USEPA, as guided by various court decisions related to SSM events.[48] In addition, this comment has not provided any information to support the claim that the emissions of coal-fired power plants associated with SSM events are significant. The study cited by this comment to support this claim, *Gaming the System: How Off-the-Books Industrial Upset Emissions Cheat the Public Out of Clean Air,* does not address coal-fired power plants.

As a final point, notwithstanding representations made in this comment, Illinois SIP contains no special provisions dealing with applicability of SIP emission limitations during shutdown of emission units. Accordingly, changes to Illinois' SIP related to shutdown of emission units are not actually required as a result of the SIP Call.[49]

Comment 29:

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[47] As with many USEPA rulemakings related to the Clean Air Act, the SIP Call is the subject of an appeal filed with the U.S. Court of Appeals in the District of Columbia, though it is too early to determine what effect this lawsuit may have on the timing or the effectiveness of the SIP Call.

[48] In the SIP Call, USEPA addressed the implications of the SIP Call for air quality in its response to certain comments that opposed the SIP Call because USEPA had not demonstrated that the provisions at issue in the SIP Call have contributed to specific violations of air quality standards or caused harm to public health or the environment.

> **As explained in the February 2013 proposal, the SNPR [Supplemental Notice of Proposed Rulemaking] and this document, the EPA does not interpret its authority under section 110(k)(5) to require proof that a deficient SIP provision caused a specific violation of the NAAQS at a particular monitor on a particular date, or that a deficient SIP provision undermined a specific enforcement action. Section 110(k)(5) explicitly authorizes the EPA to make a finding that a SIP provision is substantially inadequate to "comply with any requirement of" the CAA, in addition to the authority to do so where a SIP is inadequate to attain and maintain the NAAQS or to address interstate transport. In light of the court's decision in NRDC v. EPA, the EPA has reexamined the question of whether affirmative defenses are consistent with CAA requirements for SIP provisions. As explained in this action, the EPA has concluded that such provisions are inconsistent with the requirements of section 113 and section 304.**
> **80 FR 33859 (June 12, 2015)**

[49] It should also be recognized that the challenge of permit conditions made by this comment does not fall within the scope of revisions made in this proceeding to resolve the appeal of the initial CAAPP permit. Effectively, this comment challenges the validity of certain conditions in the initial CAAPP permit that implemented Illinois rules for startups and malfunction/breakdown events. This proceeding is governed by the applicable requirements of Title V and Illinois' CAAPP program, which act to limit the scope of review to the revisions that would be made to the CAAPP permit.

In order to ensure that the CAAPP permit for the Waukegan Station is consistent with Clean Air Act requirements, this permit must allow the public to hold Midwest Generation directly accountable when emission units at the station emit excess emissions. For this reason, the CAAPP permit should clarify that any finding in the permit that emission exceedances qualify for consideration under the provisions of Illinois SIP for SSM, as implemented through this CAAPP permit does not preclude either USEPA enforcement or a citizen suit pursuant to the Clean Air Act.

Response: The issued CAAPP permit does allow the public to hold Midwest Generation accountable for excess emissions, as provided for by the Clean Air Act. At the same time, it would not be proper for this permit to suggest, as requested by this comment, that the permit could act to alter relevant provisions of the current Illinois SIP that address emissions exceedances during startups and malfunction and breakdown events.

Comment 30:

I am here today to ask for the Illinois EPA's help. Communities like Waukegan should be protected to the fullest extent possible. Please go back and draft a permit to meet the highest standards.

Response: The revised CAAPP permit that has been issued for the Waukegan Station may be a product of a negotiated settlement resolution but it is nonetheless a rigorous permit. The permit, as issued is 2005, contained the basic emissions standards and control requirements that are applicable to any coal-fired power plant. The appeal of the issued permit has resulted in negotiated revisions to the permit that reasonably and appropriately requires Midwest Generation to assure compliance with applicable emission standards and control requirements that applied to the Waukegan Station in 2006. It also provides the necessary prerequisite for further changes to the permit in the reopening proceeding so that it will address new regulatory requirements that are also now applicable to the Waukegan Station.

6. Periodic Monitoring

Comment 31:

Another problem with the proposed SSM provisions in the draft revised CAAPP permit is that the changes to the proposed reporting requirements will make it more difficult for Illinois EPA and the public to learn about, much less effectively respond to, emissions exceedances. These changes weaken Midwest Generation's reporting requirements around SSM events in often inexplicable ways that are inconsistent with the Title V permit program's purpose of assuring compliance with the Clean Air Act.

The draft revised CAAPP permit would reduce reporting requirements without providing sufficient basis for these decisions. In particular, the proposed revisions to Conditions 7.1.10-3(a)(i), 7.2.10(b)(i)(A), and 7.3.10(b)(i)(A) would increase the time before Midwest Generation must immediately report exceedances of the 30 percent opacity standard for most of the station's equipment (including the boilers and all coal processing or handling equipment), by 18 minutes, or a more than 50 percent increase in time. The revision to Condition 7.4.10(b)(i)(A) would double the amount of time Midwest Generation has to immediately report opacity exceedances for fly ash handling equipment, from 24 to 48 minutes. All of these changes would reduce the role of Illinois EPA to provide oversight of and

respond to significant exceedances. The Illinois EPA should reconsider these planned changes to ensure that opacity exceedances continue to be dealt with quickly and with sufficient oversight.

Response: The Illinois EPA does not consider the additional time before the requirement for immediate, event-specific reporting is triggered to be an impediment to its role in addressing and exercising oversight for opacity exceedances during malfunction events. As explained in the Statement of Basis (*See* page *28, Condition 7.1.10-3(a))* the additional time is necessary to correct mistaken assumptions underlying the time periods originally selected as the triggers for the requirement for such reporting. In particular, the original time periods would not have provided the source with a reasonable opportunity or incentive to take corrective actions such that event-specific reporting would not be needed. The effect of the additional time is expected to be trivial. The time period is still relatively short and the change will not meaningfully affect the Illinois EPA's oversight role for opacity exceedances.

Comment 32:

The proposed changes to reporting for startups are problematic. The initial CAAPP permit established heightened reporting requirements for startups of the coal-fired boilers at the Waukegan Station that would take longer than 6 hours on the basis that even if the boilers were not operating at full capacity within 6 hours at least it should be able to reliably operate pollution control technologies. The revised draft permit would increase the time before Midwest Generation has to explain long startup times *more than three-fold* to 20 hours for Boiler BLR 7 and to 23 hours for Boiler BLR 8, and in doing so, removing any of the heightened reporting requirements for startups lasting longer than 6 hours. *See* Condition 7.1.9(g)(ii)(C). Illinois EPA justifies this decision in its statement of basis by claiming that "typical startups of [Waukegan-style] boilers can last as long as 28 hours for the first boiler and 8 hours for a second boiler." (Statement of Basis at 22.)

Once again, this reduced reporting requirement will reduce Illinois EPA's future ability to ensure that Midwest Generation avoids inefficient startups and excess emissions during those periods for the coal-fired boilers at the Waukegan Station. This is problematic because although the permit includes two conditions that apply during start up (see discussion of Condition 7.1.3(b)(ii) below), those conditions will not necessarily ensure compliance with relevant emission standards during the startup period. Although Midwest Generation must explain exceedances in its reporting, such exceedances are nonetheless allowed, and so there remains a disconcerting possibility that Midwest Generation could claim the startup exemption for exceedances over a 20- or 23-hour period on a regular basis, without any efforts to reduce the start-up period. Especially as compared to a 6-hour expected startup period, this change could have huge environmental impacts. As such, we urge Illinois EPA either to reconsider this reporting change, or to more carefully delineate the circumstances under which exemptions apply during different stages of an up-to-23 hour startup process.

Response: As with the preceding comment, the Illinois EPA disagrees that extending the time period for a typical startup that is used as the criterion for more detailed recordkeeping acts to diminish the ability of the Illinois EPA to address excess emissions that occur during startups. Moreover, the comment misconstrues the purpose of Condition 7.1.9(g). This condition was not

designed to restrict the duration of startup or incentivize minimization of the duration of startups.[50] Rather, its purpose is to obtain additional information about startup events that are "out of the ordinary" or atypical. If a given startup takes longer than normal, Midwest Generation must record the circumstances and any additional emissions resulting from the startup. As explained in the Statement of Basis, Condition 7.1.9(g) in the initial permit was based on an incorrect understanding by the Illinois EPA of the duration of a normal startup of a coal-fired boiler at the Waukegan Station. As a result, this condition would have treated all startups as "out of the ordinary." This has necessitated the revision to this condition to reflect the actual duration of normal startups of boilers at the Waukegan Station.

Comment 33:

Another problem with the SSM provisions in the CAAPP permit is that they provide little guidance as to what exceedances are justified during different stages of SSM events. This raises the concern that Midwest Generation could take advantage of these periods to regularly violate SIP emission limitations that apply to various emission units at the Waukegan Station. The permit would not provide guidance for what sort of startups or malfunction events might justify exceedances. For startups, this is what makes the extension of "standard" startup times to 23 hours so concerning. For malfunctions, the permit does not describe what sort of malfunctions are acceptable, in particular not explaining what "essential service" would justify continuing to operate a unit during a malfunction.

National practice generally establishes clear guidelines for operation, which are designed to ensure sources are truly minimizing emissions from boilers as they warm up. For instance, the Mercury and Air Toxics Standards (MATS), 40 CFR 63 Subpart UUUUU, requires that coal-fired utility boilers "engage and operate [] PM controls as soon as possible and no later than 1 hour []after [initiating use of primary fuels]. After engagement of PM controls, EGUs are required to maintain clean fuel use to the maximum extent possible until the end of startup (i.e., 4 hours after the start of generation of electricity or useful thermal energy)." In contrast to this tailored approach, the proposed permit would establish one monolithic startup period for each boiler, defined as the period "from the initial firing of fuel in an affected boiler to stable operation of the corresponding EGU at load," during which time a boiler is authorized to emit additional particulate matter and carbon monoxide. *See* Condition 7.1.9(g)(ii)(C).

The permit does include two substantive operational requirements for startups that will act to lower emissions. It requires the "[u]se of auxiliary fuel burners to heat the boiler prior to initiating burning of coal," which would reduce the amount of coal burned before a boiler reaches full operation. It also requires that ESPs, the particulate control devices, be energized "as soon as this may be safely accomplished without damage or risk to personnel or equipment." *See* Condition

[50] **Midwest Generation's obligation to minimize emissions during startups is addressed elsewhere in the CAAPP permit. For the coal-fired boilers, Condition 7.1.3(b)(i) provides that Midwest Generation is not relieved from the continuing obligations to demonstrate that all reasonable efforts are made to minimize startup emissions, duration of individual startups and frequency of startups. Condition 7.1.3(b)(ii) further provides that Midwest Generation must conduct startups of the boilers in accordance with written procedures that are specifically designed to minimize emissions from startups.**

7.1.3(b)(ii)(A) and (B). While these measures will act to reduce emissions during startup, they are not sufficiently specific to enable enforcement. For instance, the ESP requirement does not include any guidance for how to determine when the ESP can be started safely. The Illinois EPA should provide more enforceable guidelines for these control requirements, in particular explaining when and for how long during the startup process these controls might be expected to be put in place, and what amount of time (operating the auxiliary fuel burners or waiting to activate the ESP) would constitute a violation.

Response: This comment does not justify the changes to the CAAPP permit that are requested. This comment again confuses the stated duration for the normal startups for the coal-fired boilers, which is only relevant for recordkeeping that is required, with the actions that Midwest Generation must take to minimize emissions during startups of these boilers. With respect to actions taken during startup to minimize particulate emissions, this comment misrepresents the requirements of the MATS rule, describing only one of the options that is available for startup. Alternatively, a source may calculate the emission rate for each hour of startup, collecting appropriate data during startup with the continuous monitoring systems. With respect to the timing of the specific measures required by the permit, i.e., use of auxiliary fuels and energization of the ESP, these measures are governed by the introductory language to the relevant condition, Condition 7.1.3(b)(ii). This condition requires that these measures shall be implemented so as to minimize emissions from startups.

Incidentally, the additional provisions in the CAAPP permit that are generally requested by this comment are in direct contradiction to earlier comments by this commenter. The earlier comments argued that no exceedances of state emission standards during SSM should be condoned by the CAAPP permit for the Waukegan Station. In this comment, further specificity is now requested on exceedances during SSM that should be condoned. Moreover, earlier comments requested that the CAAPP permit explicitly provide that it does not preclude enforcement by parties other than the State of Illinois. This comment now requests that provisions be included in the permit that would act to impede the success of such enforcement. However, as already discussed, the Illinois EPA believes it would be improper to include such provisions in the body of the permit as it would be contrary to the provisions of the relevant states rules addressing emission exceedances during startups and malfunction events. It would also potentially hinder enforcement by the State of Illinois for emission exceedances during such periods.

Comment 34:

The revised CAAPP permit would remove and weaken many inspection requirements from the initial CAAPP permit. Inspections are a crucial element of ensuring that permit holders demonstrate reasonable assurance of compliance with all state and federal emission standards. Otherwise, reduced inspection standards create the risk of unsafe operating conditions by either perpetuating issues that already exist, or allowing preventable issues to develop.

In particular, draft revised Condition 7.1.7(a)(i) would increase the length of time following effectiveness of the permit before Midwest Generation must conduct testing for the PM emissions of the coal-fired boilers. The initial CAAPP permit required these tests be conducted 180

days after the effectiveness of the condition; however, the draft revised permit would double this time to one year following the effectiveness of the condition. PM emissions testing is crucial to ensure that the coal-fired boilers comply with the applicable state emission standard for PM. Doubling the amount of time before PM emission testing must be conducted raises the risk that the boilers operate with excess emissions for an additional six months.

Response: Based on the past testing that has been conducted for the coal-fired boilers at the Waukegan Station, it should not be expected that future testing will show any violations of the state PM emission standards that current apply to these boilers.[51] The time to complete the initial PM testing of the coal-fired boilers pursuant to this permit was changed from 180 days to no later than one year after the condition becomes effective to resolve the challenge to this condition in Midwest Generation's appeal of the initial CAAPP permit.

It can be noted that Midwest Generation has requested conditional approval of the CAM Plan for PM emissions of the coal-fired boilers. Notwithstanding a change to the original condition for the purpose of resolving an appeal point, the introduction of CAM to the permit, by way of this proceeding, will have the effect of assuring PM testing for the boilers within 120 days of the issuance of the revised permit.

Comment 35:

The draft revised permit would weaken the load-based trigger for requiring further PM emissions testing of a coal-fired boilers if it operates at a load higher than the load at which testing was most recently conducted. *See* Condition 7.1.7(a)(ii). The initial CAAPP permit required testing when loads were more than two percent greater than the load at which testing occurred. However, under the revised CAAPP permit, the load would need to be the greater of 10 Megawatts or five percent higher than the load at which testing was last conducted to trigger further PM emissions testing. This would be a more significant departure from testing conditions than accommodated by the initial permit. The original trigger should be retained.

The draft revised permit also extends the duration of time during which the coal-fired boilers could operate at this higher load—from 30 hours to 72 hours per quarter—before triggering the need to conduct further PM emissions testing. Allowing a boiler to operate at a higher load than the level at which testing was conducted for an aggregate of three days before triggering further emissions testing would jeopardize Midwest Generation's obligation to assure compliance with PM standards.

The Statement of Basis justifies these alterations by stating that the original criteria "were not appropriately tailored" to the coal-fired boilers at the Waukegan Station, and "would *potentially* have required that testing for PM emissions be conducted in circumstances in which it would not have been warranted." (Statement of Basis at 18) (emphasis added). However, it does not provide any additional information that might help explain this decision. Accordingly, how were the criteria not originally

[51] The PM tests for these coal-fired boilers are important as they will provide authoritative data for the current emission rates of the boilers when operating normally. They will also provide information on the margin of compliance, i.e., the difference between the actual emission rate and the allowable emission rate.

appropriately tailored to these boilers? Why would testing under the original criteria potentially be required to be conducted in circumstances in which it would not be warranted?

Response: The original criteria was not appropriately tailored to the coal-fired boilers because the Illinois EPA did not consider the effect of seasonal weather conditions on the maximum load at which the boilers can be operated at different times of the year. The capacity is highest in the winter when the air is coldest and densest and the temperature of the water in the cooling system is lowest. The capacity is lowest in the summer when the air and water are warmer. The role of the independent system operator in managing the level at which boilers may be operated during the period of testing was also not considered. The presumption underlying the original criteria was that PM emission testing could always be readily conducted very near the greatest load at which the boilers would ever need to be operated over the course of a year. In fact, because of the above considerations, PM testing may only be able to be conducted at loads that are near to the greatest load at which the boilers would need to be operated over the course of a year.

The original condition would potentially have required further PM testing in circumstances in which it would not be warranted, as the purpose of the condition was to assure that testing is conducted when the boilers are operating in the maximum load range.

Comment 36:

Condition 7.1.7(b)(i) of the initial CAAPP permit required CO and PM emissions testing to be performed at the maximum operating loads of the affected boilers. However, the draft revise permit would only require that measurements be performed at 90 percent or better of the "seasonal" maximum operating loads. First, what is meant by the word "seasonal" in this condition is unclear. Second, CO and PM emissions should be measured under operating conditions that would lend themselves to the highest level of emissions. Otherwise, there might be a spike in emissions between those reflected in testing and those that occur when the affected boilers are operating at maximum operating loads. Thus, the permit should provide for CO and PM emissions testing at maximum operating loads to ensure that authorities are aware of the maximum emissions levels that might occur.

Response: The revised condition requires emission testing of the coal-fired boilers to be conducted while they are operating in the maximum load range while, as already discussed, also recognizing that the maximum capacity of utility boilers varies slightly based on the season of the year, i.e., summer, spring of fall, and winter. The differences in capacity are relatively small but Midwest Generation was concerned that this seasonal difference in the capacity of the boilers be recognized in the provisions of the CAAPP permit. In actual practice, given the relatively small variation in boiler capacity, this is not expected to affect the representativeness of test results.

Comment 37:

Condition 7.1.7(b)(iii)(B) of the draft revised permit would allow Midwest Generation to determine compliance by using the average of three valid test runs when calculating measurements of CO and PM emissions for the coal-fired boilers. This averaging masks individual spikes in emissions, and therefore could easily hide emission violations. The Statement of Basis explained that this provision was changed to make its language

consistent with similar provisions for coal handling equipment and fly ash equipment in Conditions 7.3.7(b)(ii)(B) and 7.4.7(b)(ii)(B), respectively. (Statement of Basis at 67). However, there is no reason that these conditions need to be consistent, especially considering the very different emissions profiles and operations of coal handling equipment compared to the boilers. Testing requirements for CO and PM emissions from coal-fired boilers, coal handling equipment, and fly ash equipment should be completely independent of one another. The permit should not alter testing procedures that understate peaks in CO and PM emissions solely to unify language across sections of the permit.

Response: The revision to Condition 7.1.7(b)(iii)(B) make clear that when emission testing is conducted, the results of valid test runs must be averaged to determine compliance with emission limits. This is a well-established practice for emissions testing, as recognized by 40 CFR 60.8(f) that is specifically provided for in Illinois by 35 IAC Part 283. This approach to emission testing would be required regardless of whether the permit expressly provided for it, as currently written, or was silent. Since the revised language was included in Conditions 7.3.7(b)(ii)(B) and 7.4.7(b)(ii)(B), it was also added to Condition 7.1.7(b)(iii)(B) for completeness and clarity. Given that there are exceptions in 35 IAC Part 283 that would require the use of one test run rather than an average of three runs, this clarification simply makes it clear that these exceptions do not apply and no confusion could be imparted because of the absence of such affirmation. Other changes would not be made to the conditions of the permit discussed in this comment.

Comment 38:

The draft revised permit would significantly extend the amount of time between opacity observations conducted in accordance with Reference Method 9 under Conditions 7.2.7(a)(i)(A) – (B), 7.3.7(a)(i)(A) – (B), and 7.4.7(a)(i)(A) – (B). These observations previously were required to be conducted within three months of permit issuance, and thereafter at least annually. However, under the revised draft permit, these observations must take place no more than two years after the effectiveness of the condition, and triennially thereafter. In justifying this change, Illinois EPA stated that requirements for regular inspections of the affected units pursuant to Conditions 7.2.8, 7.3.8, and 7.4.8 allowed for opacity observations to be conducted at least annually. (Statement of Basis at 36 – 37). However, these opacity observations pursuant to Conditions 7.2.8, 7.3.8, and 7.4.8 are not required to be in accordance with Reference Method 9. The permit should retain the more frequent opacity observations that originally would have been required.

Response: These conditions were appropriate as drafted. Midwest Generation is provided the option of using USEPA Reference Method 22 because some of the equipment to be observed should not have any visible emissions. For such units, Method 22 is an appropriate test method for observations rather than conducting observations for the level of opacity by USEPA Reference Method 9.

The proposed revisions to Conditions 7.2.7(a)(i)(A) – (B), 7.3.7(a)(i)(A) – (B), and 7.4.7(a)(i)(A) – (B) regarding frequency of opacity observations was combined with the proposed revisions to Conditions 7.2.8, 7.3.8, and 7.4.8 regarding periodic inspections of emission units. The end result of these proposed revisions is that all affected operations or processes addressed by these sections of the permit must be observed for visible emissions on an annual basis. The source is allowed to use Method

22 for these observations, which do not require a certified observer. However, the source must complete an opacity observation in accordance with Method 9 within one week of observing any visible emissions which cannot be corrected within two hours of completing an observation in accordance with Method 22. The revisions to Conditions 7.2.7(a)(i)(A) – (B), 7.3.7(a)(i)(A) – (B), and 7.4.7(a)(i)(A) – (B) ensure that an opacity observation must be completed in accordance with Method 9 at least every 3 years. In summary, this proposed monitoring strategy is appropriate for the affected operations and processes defined in Sections 7.2, 7.3 and 7.4 of this permit and will not be making any additional revisions to the permit conditions noted in this comment.

Comment 39:

Revised Condition 7.1.6(a) reduces the nature and frequency of combustion evaluations for the coal-fired boilers. The permit previously required Midwest Generation to conduct combustion evaluations of these boilers quarterly, and the revised draft cut this frequency to only semi-annually for the coal-fired boilers. Doubling the interval between evaluations risks a several-month delay in detecting any combustion issues with the boilers.

Furthermore, the language of the condition no longer requires Midwest Generation to take preventative measures in response to combustion evaluations, and includes only language making adjustments in response to the evaluations voluntary. According to the Statement of Basis, Midwest Generation claimed that "its ability to make 'adjustments and preventative and corrective measures' [for the coal-fired boilers] was constrained by the bounds of technical feasibility." (Statement of Basis at 17). However, the Statement of Basis does not explain why this was the case. The proactive approach of taking preventative measures would eliminate problems with the boilers before problems start. Otherwise if foreseeable problems do occur, Midwest Generation would have the discretion to merely react to them after the fact. It would be wholly inappropriate for Midwest Generation to continue to operate the boilers if Midwest Generation had knowledge that there was a need for preventative maintenance. Therefore, Condition 7.1.6 should be revised to require quarterly combustion evaluations of the boilers and mandatory preventative measures in response to evaluations.

Response: This comment does not show that more frequent combustion evaluations are appropriate. In addition, the comment merely highlights one of the flaws with this condition in the initial CAAPP permit that led to it to being appealed. In particular, it assumes that preventative measures must be implemented as part of any combustion evaluation. However, in actual practice, combustion evaluations may not identify any preventative measures that need to be taken. Moreover, to the extent that preventative measures are taken as part of a combustion evaluation, such measures are reasonably and appropriately considered to fall with the scope of the "corrective measures" that are taken as part of a combustion evaluation.

Comment 40:

In draft Condition 7.1.9(c)(ii), the Illinois EPA proposes to delete the requirement to identify the "upper bound of the 95% confidence interval (using a normal distribution and 1-minute averages) for opacity measurements from the boiler[s], considering an hour of operation, within

which compliance with [PM emission limits] is assured ... .” Illinois EPA also proposes to delete the corresponding recordkeeping requirement in Conditions 7.1.9(c)(iii)(B), that Midwest Generation keep records for “[e]ach hour when the measured opacity of an affected boiler was above the upper bound ... .”

The revised Conditions do not meet the Title V/Part 70 requirement that monitoring must provide data representative of the source’s compliance with the underlying permit limits, 40 CFR 70.6(a)(3)(i)(B), (c)(1). As USEPA has determined numerous times in orders, where opacity is used as a parameter to ensure compliance with a PM limit, the opacity range correlating to compliance with the PM emission limit must be “set as enforceable limits” in the permit. *In the Matter of Tampa Electric Co., F.J. Gannon Station*, Objection to Proposed Part 70 Operating Permit No. 0570040-002-AV at 8 (Sept. 8, 2000); *see also In the Matter of the Huntley Generating Station*, EPA Administrator Order at 21 (July 31, 2003) (“the title V permit must include a specific opacity limit [in the PM limit sections of the permit] that would correlate to the PM limit [in the permit].”); *In the Matter of Dunkirk Power LLC*, USEPA Administrator Order at 20 (July 31, 2003) (holding that operating outside of the parameter range constitutes a violation of the permit); *In the Matter of Midwest Generation, LLC, Waukegan Generating Station*, USEPA Administrator Order at 20 (Sept. 22, 2005) (requiring that opacity used as a surrogate for PM to satisfy Part 70 monitoring requirements must “include a correlation between th[ose] measurements and compliance with the PM emission limitations.”). In fact, USEPA has required that the correlation be set so that it provides direct evidence of compliance or non-compliance with the permit. *In the Matter of Dunkirk Power LLC*, USEPA Administrator Order at 19-20 (“Once operating ranges have been established for the ESP operating parameters, *operating the ESP outside of any of these ranges would constitute a violation of the title V permit*.” (emphasis added)). As a result, the permit fails to meet the requirement that it include “monitoring ... requirements sufficient to assure compliance with the terms and conditions of the permit.” *In the Matter of Midwest Generation, LLC, Waukegan Generating Station*, USEPA Administrator Order at 19 (citing 40 CFR 70.6(a)(3)(i)(B) and 70.6(c)(1)). The permit must be revised to include an enforceable opacity limit corresponding to violation of PM emission limits, set no higher than the 30 percent opacity limit provided for in the Illinois SIP. While 35 IAC 212.124(d)(2)(A), a provision in Illinois SIP, already provides that a violation of the 30 percent opacity limit in 35 IAC 212.123 presumptively constitutes a violation of the applicable PM standard, a lower limit for opacity may be necessary to ensure compliance with the PM standard.

With the proposed revision to Condition 7.1.9(c)(iii)(B), Midwest Generation would only be required to keep records of the date, time, measured opacity, operating condition, and other information of “*three hour* block averaging period[s]” (emphasis added) with average opacity above 30 percent. This is further insufficient to ensure compliance with the applicable PM limit. Again, the applicable PM limit is based on an hourly average. 35 IAC 212.202. Midwest Generation should be required to keep detailed records of any one-hour period with average opacity above the applicable opacity limit.

Response: The changes to Condition 7.1.9(c) do not result in the Periodic Monitoring for the coal-fired boilers at the Waukegan Station being insufficient. The changes to this condition maintain consistency with 40 CFR

70.6(a)(3)(i)(B) and Section 39.5(7)(d)(ii) of the Act. [52, 53] Compared to the initial permit, essentially all that has occurred in Condition 7.1.9(c) of the issued permit is that a specific value for the level of opacity, 30 percent, 3-hour average, is now set as part of the Periodic Monitoring to assure compliance with the PM standard for the Waukegan Station boilers. This value takes the place of the statistical criterion or "method" that would have been required for the future establishment by the Waukegan Station of value(s) of opacity that would serve to assure compliance with the PM standard.[54] The "alternative" approach to Periodic Monitoring for the coal-fired boilers for PM that is now present in the revised permit is consistent with the relevant conclusion from the USEPA's decision in *In the Matter* of Midwest Generation, LLC, Waukegan Station.[55] This order does not state or suggest that the value of opacity that is selected for Periodic Monitoring must directly correlate with a violation of the PM standard, as implied by this comment:

> In this case, since Illinois EPA used opacity and (sic) as one of the surrogate methods to assure compliance with PM limits, the Title V permit must include a specific opacity limit or a method for determining an opacity limit that would correlate the results of the PM testing results (sic) and the opacity limit.
> *In the Matter of Midwest Generation, LLC, Waukegan Generating Station*, USEPA Administrator Order (Sept. 22, 2005), p 20.

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[52] 40 CFR 70.6(a)(3)(i)(B) provides as follows:

> (3) *Monitoring and related recordkeeping and reporting requirements.* (i) Each permit shall contain the following requirements with respect to monitoring: …(B) Where the applicable requirement does not require periodic testing or instrumental or non-instrumental monitoring (which may consist of recordkeeping designed to serve as monitoring), periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit, as reported pursuant to paragraph (a)(3)(iii) of this section. Such monitoring requirements shall assure use of terms, test methods, units, averaging periods, and other statistical conventions consistent with the applicable requirement. Recordkeeping provisions may be sufficient to meet the requirements of this paragraph (a)(3)(i)(B) of this section.

[53] 40 CFR 70.6(c)(1) does not appear to impose any additional requirements for the subject monitoring. As reiterated by USEPA in the order for the Waukegan Generating Station cited by this comment, "EPA has interpreted section 70.6(c)(1) as requiring that title V permits contain monitoring required by applicable requirements under the Act (e.g., monitoring required under federal rules such as MACT standards and monitoring required under SIP rules) and such monitoring as may be required under 40 CFR 70.6(a)(3)(i)(B)." *In the Matter of Midwest Generation, LLC, Waukegan Generating Station*, EPA Administrator Order (Sept. 22, 2005), p 19.

[54] By way of further explanation, Midwest Generation appealed Condition 7.1.9(c)(ii) in the initial CAAPP permit, which would have required it to develop a value for opacity based on the results of emissions testing, with a numerical value for opacity set at the "upper bound of the 95 percent confidence interval." Midwest Generation argued that this requirement imposed an "unreasonable burden" and would not generate information that could be used in conjunction with other actions to address compliance with the PM standard(s). Settlement discussions confirmed the difficulties in this condition of the initial permit. Among other things, it required the correlation between opacity and PM emissions to meet a statistical criterion as related to the confidence interval. This criterion would not necessarily be able to be met given the nature of the correlation between opacity and PM emissions and the data that would be available from emissions testing to develop the correlation.

[55] The USEPA's Order in *In the Matter of Midwest Generation, LLC, Waukegan Generating Station* is considered the appropriate guidance from USEPA for this proceeding. This is because it is more recent and addressed Title V permitting of a coal-fired power plant in Illinois.

Finally, this comment has not demonstrated that the 30 percent opacity limit in 35 IAC 212.123(a) has the role suggested by this comment for the CAM Plan required under 40 CFR Part 64 to address compliance of the coal-fired boilers at the Waukegan Station with the applicable PM standard in 35 IAC 212.202. The indicator range for opacity under the CAM Plan could be higher than 30 percent if such higher value would provide a reasonable assurance of compliance with 35 IAC 212.202. However, Midwest Generation has reasonably chosen to set the indicator range at 30 percent.

Comment 41:

Following PM emission testing, Midwest Generation may determine that the percent opacity that constitutes a PM violation may be well below this 30 percent limit. It would therefore be inappropriate for Midwest Generation to not keep record of all PM violations that do not exceed 30 percent opacity. Although the Statement of Basis notes that this 30 percent value is "potentially mutable," this possibility is not reflected in the draft CAAPP permit. (Statement of Basis at 21). The CAAPP permit should ensure that this 30 percent parametric monitoring limit can be revised downward if a more stringent limit is necessary to ensure of compliance with applicable PM standard.

Response: It is implicit in the conditional approval of the CAM Plan that an indicator range less that 30 percent may eventually be set based on the results of the PM testing required pursuant to the conditional approval. The final CAM Plan based on these test results will be reviewed by the Illinois EPA to assure that an appropriate indicator range is set for opacity, which will reasonably assure compliance with the applicable state PM standards. It should be noted that this does not mean that opacity higher than the specified indicator range(s) will indicate a violation of these standards.

Comment 42:

Recordkeeping requirements for the COMS in Condition 7.1.9(c)(ii)(B) would be revised to require a description of, rather than an explanation for, opacity exceedances unless other information shows that PM emissions exceed the applicable state PM standard, 0.1 lb/mmBtu in any one-hour period. Records that include explanations of opacity exceedances are necessary to enable Illinois EPA and the public to bring enforcement actions for opacity violations. Without PM CEMs, there generally will not be records indicating that PM emissions standards were exceeded. Indeed, that is why opacity is being used as the CAM indicator for PM. Explanations of opacity violations are thus necessary to show whether an incident was occurring and whether particular permit provisions concerning the incident apply. The proposed revisions would seriously compromise information that is available for violations.

Response: Webster's Dictionary defines "*explanation*" as "a statement or account that makes something clear", and "*description*" as "a spoken or written representation or account of a person, object, or event." In the context of an opacity exceedance, the difference between an "explanation of an incident" and a "description of an incident" is not considered significant. Both are a statement or account of something (i.e.; an event, incident, etc.). The Illinois EPA concluded that a minor change in terminology was warranted to resolve the appeal of the subject recordkeeping requirements.

Comment 43:

The revised CAAPP permit would remove and weaken many reporting requirements from the initial CAAPP permit. Reporting keeps Illinois EPA updated on any problems at the Waukegan Station, giving Illinois EPA and Midwest Generation the opportunity to work together to resolve any issues. Furthermore, Midwest Generation must engage in adequate reporting to provide Illinois EPA and the public with the information necessary to demonstrate reasonable assurance of compliance with the law.

In particular, Illinois EPA proposes to remove the requirement under Condition 7.1.10-2(d)(iv)(A)(4) that Midwest Generation include in quarterly operating reports "[t]he percent opacity measured for each six-minute period during the exceedance." In the Statement of Basis, Illinois EPA asserts that the condition has been changed because "the revised permit relies upon opacity of emissions on a 3-hour average, rather than on a 6-minute average, as the indicator of compliance of the coal-fired boilers with 35 IAC 212.202." (Statement of Basis at 27). Again, a three-hour block average cannot assure compliance with an hourly emission limit. Moreover, this explanation does not provide a basis for deleting the requirement to report percent opacity measured during a violation of PM emission limits. Given that opacity is continuously monitored by the COMS, the requirement to report opacity in six-minute increments is not burdensome, but supplies useful information to both Illinois EPA and the public to enforce other permit requirements. This condition should be retained.

Response: This condition does not need to be retained, contrary to the request in the comment. As noted in the comment, for the required quarterly reports related to PM exceedances, the requirement to include the percent opacity measured for each six-minute period during an exceedance was removed from the CAAPP permit. This is because the CAAPP permit relies upon opacity on a 3-hour average, rather than a 6-minute average, as specifically discussed in the Statement of Basis.

The comment further observes that since opacity is continuously monitored by the COMS, the requirement to report opacity in six minute increments is not burdensome. This condition was also revised to require the qualitative or, if available, quantitative magnitude of the exceedance and supporting data be included in the quarterly report. Therefore, relevant data, including COMS data, would be included in the quarterly compliance reports for PM emissions. Additionally, the revisions did not remove any requirement for quarterly reporting of other exceedances, including violations of the opacity standard.

Comment 44:

Condition 7.1.10-3(a)(i) would be revised to increase the duration of exceedance of the 30 percent opacity standard by a boiler that triggers Midwest Generation's requirement to immediately notify Illinois EPA from five or more 6-minute averaging periods to eight or more periods. In the Statement of Basis, Illinois EPA asserts that the additional 18 minutes are necessary to provide "a reasonable opportunity for the source to complete corrective action so that the source would not need to undertake immediate reporting to the Illinois EPA for opacity exceedances that were relatively brief and accordingly likely minor in nature." (Statement of Basis at 28-29). This explanation is unreasonable. Pursuant to 35 IAC 212.123 and 212.124, opacity exceedances of two six-minute averaging periods constitute violations of the SIP's opacity and PM emission limits. Exceedances of thirty minutes in duration are serious violations that should be brought to Illinois EPA's attention immediately. The conditions allow Midwest Generation to notify Illinois EPA by "telephone (voice, facsimile or

electronic)," a process that with modern communication technologies would take one worker less than one minute. This process is not burdensome and would not interfere with the corrective action process. The condition should be reinstated.

Response: This comment does not show that the planned change to this condition was improper and that the provisions of the initial condition should have been retained in the revised permit. Condition 7.1.10-3(a)(i) deals with reporting for continued operation of a boiler with excess opacity or PM emissions during malfunction or breakdown. It requires Midwest Generation to provide certain "incident specific" notifications and reports to the Illinois EPA for such incidents. All such incidents must also be reported in the quarterly reports under Condition 7.1.10-1(b) (periodic reporting of deviations) and Condition 7.1.10-2(a)(ii) (reporting of SO_2, NO_x and PM emissions and opacity).

This comment specifically addresses the requirement in Condition 7.1.10-3(a)(i) that Midwest Generation must provide an event-specific report to the Illinois EPA if the opacity from a boiler exceeds the opacity standard for a specified number of 6-minute averaging periods, unless the Waukegan Station has begun shutdown of the boiler by such time.

Midwest Generation appealed Condition 7.1.10-3(a)(i) in the initial permit. In the settlement negotiations, Midwest Generation explained that it objected to having to provide reports for opacity exceedances at a point in time when the circumstances surrounding the exceedances may still be unfolding or investigations are only at an initial stage. It became apparent that some of the assumptions that the Illinois EPA had made when initially selecting a timeframe of 30 minutes (five 6-minute averaging periods) for such reporting were not correct. The Illinois EPA had assumed that 30 minutes would provide a reasonable opportunity for the Waukegan Station to complete corrective action so that it would not need to undertake such reporting to the Illinois EPA for opacity exceedances that were relatively brief and accordingly likely minor in nature. In addition, it was expected that 30 minutes would provide adequate time for the Waukegan Station to conduct an initial evaluation for more incidents that were potentially more serious, for which such reporting would be required, so that such reports would be able to include useful information. Finally, it was also expected that 30 minutes would provide appropriate incentives for rapid implementation of corrective actions. It is now recognized that 30 minutes is not adequate for these purposes.

After protracted discussions, the Illinois EPA agreed to address these concerns by providing additional time for Midwest Generation to investigate and possibly resolve the malfunction or breakdown incident while continuing to have a stringent criterion for incidents for which event-specific reporting is required. The length of time before the requirement for event-specific reporting is triggered has been increased from five to eight 6-minute averaging periods (30 minutes to 48 minutes). The source will now have 18 additional minutes in which to correct the problem causing excess opacity or begin the shutdown of a boiler before it needs to provide an event-specific report for an opacity exceedance. The consequences for compliance are expected to be trivial. The source must report all exceedances in its periodic compliance reports and event-specific reporting is still required for opacity exceedances of relatively short duration.

Comment 45:

For the coal-fired boilers, draft revised Condition 7.1.12(a)(ii)(E) would no longer require Midwest Generation to provide Illinois EPA with notice at least 15 days before changing its procedures associated with its reliance on 35 IAC 212.123(b) for the opacity of the boilers. This is problematic because, with such notification, the Illinois EPA would potentially be able review the revised procedures before Midwest Generation begins to implement them. Under the revised condition, Midwest Generation would only need to notify the Illinois EPA in its next quarterly report after it changes these procedures. The Statement of Basis states that the Illinois EPA need not review proposed changes to the type of short-term data, so long as Midwest Generation continues to satisfy all elements of 35 IAC 212.123(b) if it is relied upon. (Statement of Basis at 32). However, in order to determine whether this rule has been satisfied, there must be appropriate data in the first place. Therefore, existing Condition 7.1.12(a)(ii)(E) should be retained to afford the Illinois EPA the opportunity to review any changes in the type of short-term opacity data collected by Midwest Generation pursuant to Condition 7.1.12(a)(ii)(A).

Response: Upon further consideration during settlement discussions, the Illinois EPA has concluded that advance notice by Midwest Generation, as would have been required for certain changes to its procedures by Condition 7.1.12(a)(ii)(E) in the initial permit, is not warranted. The key purpose of this condition was to ensure that Midwest Generation was keeping appropriate short-term opacity for the boilers as is needed to implement to 35 IAC 212.123(b). However, Condition 7.1.12(a)(ii)(A) clearly lays out the types of short-term opacity data that Midwest Generation must record as it elects to rely on 35 IAC 212.123(b), i.e., either a continuous chart recording of measured opacity, a record of discrete measurements of opacity taken no more than 10 seconds apart, or a record of 1-minute average opacity data.

Moreover, it is unlikely that the Illinois EPA would be able to complete any review of a planned change within the 15 day period that would have been provided by the initial CAAPP permit. 35 IAC 212.123(b), which is part of Illinois SIP, does not provide that a source must obtain approval from the Illinois EPA prior to reliance on this alternative to the generally applicable opacity standard in 35 IAC 212.123(a).

Finally, the initial condition was overly broad as it could have been interpreted to extend to any change in procedures by Midwest Generation, including changes in the personnel that reviewed opacity data or the scheduling of this review.

Comment 46:

Draft revised Condition 7.1.10-2(b)(iii)(C) would require Midwest Generation to include in its quarterly reports exceedances of SO_2 emissions in one-hour and three-hour averages for each three-hour block of excess emissions. This block averaging would not provide an accurate overview of the trajectory of these exceedances and would not tell individuals reviewing such reports what the maximum SO_2 levels were. The permit should require reporting for SO_2 exceedances that does not consist of averages so that exceedances can be better understood.

Response: As indicated in Condition 7.1.10-2(b)(iii)(C), the averaging period for the relevant SO_2 standard, 35 IAC 214.141, as addressed in Condition 7.1.4(c), is a three-hour block average. Accordingly, Condition 7.1.10-2(b)(iii)(C) requires that Midwest Generation report exceedances of this

standard to the Illinois EPA. Since this standard applies on a three-hour block average, it is wholly appropriate to require that three-hour average SO_2 emission rates be provided in the quarterly compliance reports. Moreover, this condition also requires Midwest Generation to report the individual one-hour average emission rates that make up the three-hour block average. Since the boilers burn low-sulfur coal and do not rely on SO_2 control devices to comply with 35 IAC 215.141, this will provide the necessary information to understand any exceedance or deviations and what response is appropriate. In particular, this reported data will indicate whether the SO_2 exceedance is a consequence of unusually high sulfur content in the coal during a particular hour or reflects a potentially longer-term increase in the sulfur content of the coal supply.

Comment 47:

Condition 7.1.10-2(d)(ii) of the draft revised permit would lessen the stringency of the reporting requirements when excess opacity is less than one percent of the total operating time for an affected boiler during the calendar quarter, or if the opacity monitoring system downtime was less than five percent of the total operating time for an affected boiler during the quarter. USEPA has made it clear that there is no de minimis exception, and there has also never been a de minimis exception in the State of Illinois. This de minimis exception is problematic because it could protect Midwest Generation from certain enforcement actions, which would have the practical effect of unlawfully increasing the Waukegan Station's total emission limits. This de minimis reporting exception must be deleted from the permit.

Response: The proposed revisions to Condition 7.1.10-2(d)(ii) would not have established a "de minimis"[56] level for opacity exceedances within which opacity exceedances would not have been considered or treated as violations, as claimed by this comment.[57] In this regard, reporting of detailed information for any opacity exceedance is required by Condition 7.1.10-2(d)(iii). Rather the planned changes to Condition 7.1.10-2(d)(ii) were intended to clarify the reporting that was required for the operation of continuous opacity monitoring systems. However, given the confusion caused by the planned changes and the fact that the required information must always be recorded, the revised CAAPP permit that has been issued requires detailed information about the downtime of opacity monitoring systems be included in all periodic opacity reports. The revised CAAPP permit no longer provides for simplified reporting of monitor downtime in certain circumstances, as would have been provided by both the initial CAAPP permit and the draft of the revised CAAPP permit.[58]

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[56] "De minimis" is a legal term that is commonly understood to mean too minor or trivial to merit consideration. It comes from the Latin phrase "*De minimis non curat lex*," which translates as "The law does not concern itself with trifles."

[55] This comment appears to assume, incorrectly, that a "de minimis exception" for opacity exceedances exists if the duration of opacity exceedances as a percentage of overall operating time of a boiler is less than one percent.

[58] The initial and draft revised CAAPP permits both reflected an aspect of the reporting requirements for monitored exceedances and monitoring systems under the USEPA's New Source Performance Standards (NSPS), 40 CFR Part 60. In particular, Condition 7.1.10-2(d)(ii) would only have required submittal of detailed information about the operation of the monitoring system if the system downtime was more than 5 percent of the total operating time of the associated boiler during the quarter, as provided by 40 CFR 60.7(d)(2). This condition would have accurately mirrored NSPS reporting requirement that apply to continuous monitoring systems. In this regard, 40 CFR 60.7(d) states:

> **The summary report form shall contain the information and be in the format shown in figure 1 unless otherwise specified by the Administrator. One summary report form**

Comment 48:

The draft revised permit generally reduces the quality of information Midwest Generation is required to provide for SSM events. For instance, whereas the original permit required Midwest Generation to report the "date, time, duration, and description" of any exceedances during startup, revised Condition 7.1.9(g)(ii)(A) would require reporting of the "nature of such exceedance(s), including the qualitative or, if available, quantitative magnitude" thereof. It is not clear exactly what the "nature of" reporting requires, but Illinois EPA provides no guidance for this new terminology in its statement of basis. (*See generally* Statement of Basis). Therefore, the revised permit should provide more thorough guidance on what reporting is required, and in particular ensure that Midwest Generation shares all relevant information relating to exceedances.

Response: The revised CAAPP permit still requires appropriate records for startup of the coal-fired boilers. Upon further consideration during the course of settlement negotiations with Midwest Generation, the Illinois EPA has concluded that the recordkeeping for startups of the coal-fired boilers that would have been required by the initial permit could be significantly reworked while still requiring meaningful recordkeeping. The changes to the required records for startups, which this comment broadly characterizes as relaxations and summarily opposes, reflect the result of this reevaluation of these provisions by the Illinois EPA. The changes to these provisions also serve to address the appeal of these recordkeeping requirements in the original permit. Midwest Generation challenged these requirements as being unreasonable given the consistent, rote nature of routine startups of the coal-fired boilers, which take place in accordance with its established procedures for startups. It also challenged these conditions as they extended to emissions during startups that complied with applicable standards.

Moreover, this comment does not accurately describe the changes that have been made, suggesting that they relax the scope of the required recordkeeping. In fact, the revised CAAPP permit still requires records for "the date, time and duration of each startup." This requirement was moved and never referred to excess emissions. With respect to emissions, the initial permit only required startup-specific information for the magnitude of excess emissions of PM or CO and whether applicable standards were exceeded for extended startups. Otherwise, for typical startups, the initial permit relied on information for emissions during typical startups. The revised CAAPP permit requires startup-specific information related to excess emissions for all startups. For this purpose, Midwest Generation must provide detailed information including, "…an explanation of the nature of such exceedance(s), including the qualitative or, if

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shall be submitted for each pollutant monitored at each affected facility. (1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in §60.7(c) need not be submitted unless requested by the Administrator. (2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7(c) shall both be submitted.

available, quantitative magnitude of such excess emissions." [59]

Comment 49:

The CAAPP permit should strengthen equipment standards that pertain to coal handling, coal processing, and fly ash equipment. Inadequate management of such equipment can lead to exceedances in fugitive emissions and incompliance with federal and state laws.

In particular, Illinois EPA fails to require any specific control measures for coal handling, coal processing and fly ash handling equipment. The proposed modified conditions are so vague as to be unenforceable. In the original conditions, the emission sources were *required* to implement identified controls. Based on the revised language, though, it is impossible to know whether any specific control is required.

Midwest Generation is given too much discretion over its control measures, making this condition out of compliance with 40 CFR 70.6(a). Under Conditions 7.2.9(b)(i)-(ii), 7.3.9(b)(i)-(iii), and 7.4.9(b)(i)-(iii) Midwest Generation must maintain a record to reflect any changes in control measures for coal handling, coal processing, and fly ash handling and storage and equipment. This record for coal processing equipment and fly ash handling equipment must be accompanied by a demonstration that these measures are sufficient to ensure compliance with emission limitations. However, Midwest Generation is not required to seek Illinois EPA's approval in order to implement these changes. Finally, because Midwest Generation is given absolute discretion in selecting its control measures, if any, the public is denied the opportunity to meaningfully comment on these measures.

We therefore concur with USEPA in its request that the proposed CAAPP permit: (1) Specify minimum control measures for coal handling, coal processing, and fly ash handling equipment by revising Conditions 7.2.6(a)(i), 7.3.6(a)(i), and 7.4.6(a)(i); (2) Require Illinois EPA to review and approve of any control measures selected by Midwest Generation by revising Conditions 7.2.9(b)(i)-(ii), 7.3.9(b)(i)-(ii), and 7.4.9(b)(i)-(ii); and (3) Incorporate the specific control measures, including the pertinent information on the control measures (description, frequency, and other information necessary to demonstrate compliance with applicable limitations), corresponding to each emission point into the permit during the reopening process.

Response: The original permit conditions for these operations required the source "to implement and maintain" particulate matter control measures for the affected operations in accordance with a record identifying the control measures to be developed by the source following permit issuance. The approach in the revised permit is no different, as the relevant conditions continue to require the source to "maintain and implement" the control measures that are identified by the source in its control measures record.[60, 61]

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[59] For exceedances of emission standard during startups, Condition 7.1.9(g)(ii)(B) also requires Midwest Generation to keep records related to the actions taken to minimize the magnitude and duration of excess emissions. It also requires records that explain whether similar events could be prevented in the future and, if so, a description of the actions taken or planned to prevent similar exceedance in the future.

[60] The permitting changes in the revised permit largely reflect clarifications to the earlier approach. In particular, the revisions clarify that the work practice

To the extent that the permit conditions are challenged as lacking minimum or unenforceable control measures or failing to provide for agency approval of the same, the comment is outside the scope of changes being addressed in this permitting action. As with the nearly identical comments raised by USEPA, the subject control measures underwent public comment and USEPA review at initial permit issuance and were clearly ascertainable at that time. Although the Illinois EPA will not waive the procedural defects reflected in the comment, it will nonetheless share its general understanding of the issues raised by the comment to avoid any possible confusion or misunderstanding by the public. To avoid repetition, this discussion can be found in the response to a nearly identical USEPA comment in Section G below.

Comment 50:

The draft revised permit would remove all mention of several emissions units that are no longer subject to certain regulations. These are: (1) Coal crushing house; (2) Coal crushing operations; (3) Dust suppressant application system; (4) Water sprays; (5) Outdoor storage piles/Dust collection devices; and (6) Enclosures and covers. All equipment delineated in Conditions 7.2.2, 7.3.2, and 7.4.2 are denoted by the permit as "affected operations" or "affected process[es]" in Conditions 7.2.3(a), 7.3.3(a), and 7.4.3(a). Under Conditions 7.2.4(a), 7.3.4(a), and 7.4.4(a), fugitive emissions of these affected operations must comply with emission standards. Removing the above emission units no longer subjects these units to emissions standards compliance. However, the SIP in 35 IAC 212.301 and 212.313 places emission standards on any process and on all particulate collection equipment regulated under Conditions 7.2, 7.3, and 7.4. Therefore, the permit must reinstate all emission units deleted from these conditions in order to reasonably assure of compliance with applicable standards.

Response: The proposed changes to Condition 7.2.2, 7.3.2 and 7.4.2 do not affect applicability of any emission standards as incorrectly suggested by this comment. Rather, certain changes to these conditions were made to reflect terminology routinely used by Midwest Generation to refer to the relevant handing operations. Reducing possible confusion through clarifying language will enhance implementation of the permit.[62] In addition, in Condition 7.3.2, "crusher house" was removed because the relevant emission units that process coal are the coal crushers and not the building in which they are located.

Emission control devices and emission control measures are no longer identified in Conditions 7.2.3. 7.3.3 and 7.4.3. This is because, as previously discussed in this Responsiveness Summary, control devices and control measures utilized for coal processing, coal handling and fly ash handling equipment must be specifically identified by Midwest Generation

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requirements are meant to support periodic monitoring for the affected operations and provide additional details of the control measures identified by the source.

[61] The comment also observes that the public has been denied an opportunity to comment on the control measures list and that the Illinois EPA should incorporate the control measures record into the CAAPP permit at reopening. Due to the lack of permit effectiveness for the initial CAAPP permit, the source has yet to generate the control measures record. As such, this part of the comment is premature. In addition, the Illinois EPA anticipates that the record of control measures developed by the source will be incorporated by reference into the CAAPP permit as part of, or contemporaneous with, the reopening proceeding.

[62] In particular, in Condition 7.2.2, "coal receiving" was changed to "coal unloading by rail." In Condition 7.3.2, "coal crushing operations" was changed to "coal crushers."

in the records required by Conditions 7.2.9(b)(i), 7.3.9(b)(i) and 7.4.9(b)(i).

Comment 51:

The draft revised CAAPP permit would not require adequate inspections of coal and fly ash handling processes. Among other inspection measures, Conditions 7.2.8(b), 7.3.8(b), and 7.4.8(b) direct Midwest Generation to inspect affected operations by either monitoring visible emissions ("VE") or opacity annually. This lack of regular monitoring or inspections is troubling. "Given that the majority of the affected equipment operates regularly throughout the year, it is not clear how the draft CAAPP permit inspection requirements and frequency of the required VE observations are adequate to yield reliable and accurate emissions data, as required by 40 CFR 70.6(a)(3)(i)(B)." USEPA Comments on the Waukegan Station's Proposed CAAPP Permit, dated September 23, 2015.

Response: As discussed in more detail in the response to a nearly identical comment from USEPA in Section G below, this comment focuses narrowly on only one aspect of the required Periodic Monitoring and fails to consider the entirety of the Periodic Monitoring required for the subject operations and processes. As discussed, the Periodic Monitoring for the subject operations includes requirements for inspections, observations for visible emissions and/or opacity, recordkeeping and reporting.

Comment 52:

For the coal handling, coal processing, and fly ash handling operations at the Waukegan Station, the Periodic Monitoring required by the CAAPP permit must include inspections on a regular basis. The Illinois EPA should also have provided an explanation in the Statement of Basis for the draft revised CAAPP permit for how the control measures and monitoring requirements for each transfer point, coal pile, conveyor belt, and other fugitive emission points will assure compliance with all applicable opacity and PM limits. This should include a discussion of the relationship between monitoring frequency and applicable emission limits.

Response: As generally discussed in the Statement of Basis, the regular inspections of coal handling, coal processing and fly ash handling required by Conditions 7.2.8, 7.3.8 and 7.4.8, respectively, of the CAAPP Permit for the Waukegan Station will serve to confirm that the relevant control measures are being properly implemented for these emission units. As discussed in other responses, these control measures must be developed to ensure compliance with the applicable standards, as set forth in Conditions 7.2.4, 7.3 4 and 7.4.4 of the CAAPP permit. As such, proper implementation of the control measures should ensure compliance. Formal verification of the proper implementation of control measures on a monthly basis (weekly basis for fly ash load out processes) is sufficient because these control measures will become part of the standard operating procedures for these units. In addition, proper implementation of the control measures for a unit is required at all times that the unit is in operation. Any lapses in the implementation of control measures are deviations and must be addressed in the records required by Conditions 7.2.9(e), 7.3.9(d) and 7.4.9(d).

The CAAPP permit also includes requirements to confirm that the relevant control measures assure compliance with applicable standards. With respect to the opacity standard, as part of the regular formal inspections of these units, Midwest Generating is also required to conduct

observations for visible emissions or opacity of some units during each inspection with all of these units observed for visible emissions or opacity at least once per calendar year. For coal processing equipment and fly ash handling equipment, which are subject to the PM emission standards in 35 IAC 212.321 or 212.322, Midwest Generation is required by Conditions 7.3.9(b)(ii) and 7.4.10(b)(ii) to maintain a demonstration that confirms that the control measures used for this equipment are sufficient to assure compliance with the applicable limits pursuant to these standards.

Comment 53:

The revised draft CAAPP permit would no longer require Midwest Generation to perform detailed inspections of dust collection equipment, as would have been required by Conditions 7.2.8(b) and 7.3.8(b) of the initial CAAPP permit. Instead, revised Conditions 7.2.8(c)-(d) and 7.3.8(b)-(c) only include inspections of coal storage bunker baghouses rail car baghouses, and the coal breaker building baghouses. It is inappropriate to not inspect all dust collection equipment for coal handling and coal processing. The particulate collection equipment for these operations is subject to an emission standard, 35 IAC 212.313. To reasonably assure compliance with this standard, Midwest Generation must be required to conduct inspections of all dust collection equipment. The revised CAAPP permit should keep the requirements of Conditions 7.2.8(b) and 7.3.8(b) from the initial permit.

Response: Conditions 7.2.8(b) and 7.3.8(b) in the initial CAAPP permit would have required Midwest Generation to complete detailed inspections of internal components of dust collections equipment, such as baghouses, at least every 15 months while the equipment was out-of-service. Midwest Generation appealed these conditions arguing that they were overly-prescriptive regarding the timing and nature of the required inspections. Midwest Generation argued that it could conduct appropriate inspections while the dust collection equipment was in service and should not be required to take the coal-fired boilers out of service to conduct inspections of the dust collection equipment for coal handling and processing.

As discussed in the Statement of Basis, Illinois EPA agreed that there are other approaches for inspections of control equipment that may be acceptable. Accordingly, monthly inspections are required for the baghouses for the coal storage bunkers and coal breaker building while they are operating, rather than inspections every 15 months while these baghouses are out-of-service. The inspections must confirm these baghouses are operating properly, including that the differential pressure across the baghouse is within the appropriate range and that there are not visible emissions from the vents of the baghouse exhaust. The permit also requires comparable inspections for differential pressure and visible emissions of each baghouse used during unloading of each coal train set. The inspections required by these conditions will reasonably assure that the baghouses are operating properly so as to provide compliance with applicable requirements.

Comment 54:

Conditions 7.2.8(a), 7.3.8(a), and 7.4.8(a) of the initial CAAPP permit would be revised to no longer require periodic inspections of the subject emission units to be conducted by individuals "not directly involved in the day-to-day operation" of the units. Not requiring inspections to be conducted by

individuals not directly tied to the operation of the units threatens conflicts of interest. Illinois EPA would change these provisions to address Midwest Generation's concern that inspections be conducted by personnel with the requisite knowledge. (Statement of Basis at 37-38). However, requiring that inspections be conducted by individuals with a greater level of independence from the procedures does not preclude management and supervisory personnel from also conducting inspections. The Illinois EPA must retain the original conditions to the extent that they call for inspections to be conducted by individuals "not directly involved in the day-to-day operation" of the units. To address the concern regarding personnel having sufficient knowledge to conduct the inspections, Illinois EPA could add a requirement that the personnel conducting inspections "have the requisite knowledge to do so."

Response: The concern expressed by this comment is addressed by the revised conditions, as they now require sign-off on the records for these periodic inspections by management or supervisory personnel. Accordingly, if the relevant manager or supervisor chooses to have another individual perform these inspections, the conditions clearly provide that such manager or supervisor retains the responsibility for the inspections. Moreover, the revised conditions should be more effective than the initial conditions as they require sign-off by the relevant manager or supervisor. These individuals and their staff will have the requisite knowledge about the appropriate operation of the control measures for the subject units. They will also have the necessary training to safely conduct inspections of these units. The manager or supervisor will also have the authority and responsibility to initiate corrective actions if an inspection reveals any issue. While the initial conditions were written to require that these inspections be conducted by personnel who are not involved in day-to-day operations of the subject units, the conditions did not address other concerns that are relevant for these inspections.

Comment 55:

Condition 7.4.3(b)(iii) of the initial CAAPP permit would not be carried over to the revised CAAPP permit. This condition required Midwest Generation to maintain a contingency plan for the handling and temporary stockpiling of fly ash if an affected process must be taken out of service. Instead, Condition 7.4.11(c) was added in the revised permit. Condition 7.4.11 grants Midwest Generation the ability to make certain physical and operational changes to critical fly ash equipment processes without any prior notification to Illinois EPA or revision of the permit. Condition 7.4.11(c) in particular, would provide that the temporary stockpile storage handling of such fly ash for offsite shipment would be "managed in accordance with the Fugitive Particulate Matter Operating Program required by Condition 5.2.4." However, the public is not afforded the opportunity to review this Operating Program. Rather, per Condition 5.2.4(a), the program would be submitted to Illinois EPA outside of the permitting process. Therefore, either the requirements under Condition 7.4.3(b)(iii) relating to the fly ash contingency plan must be reinstated, or the public should be afforded the opportunity to comment on the Operating Program for Fugitive Particulate Matter.

Response: The contingency plan for handling fly ash required by Condition 7.4.3(b)(iii) of the initial CAAPP permit was only applicable in the event of a malfunction or breakdown an affected fly ash handling process and associated repairs. During settlement negotiations to address the appeal of this "site specific" condition, Midwest Generation indicated that requiring a separate

plan for handling and temporary storage of fly ash during malfunction or breakdown was unnecessary because the actions that would be taken would be addressed in the Operating Program for Fugitive Dust. In addition, the condition would not address the handling of the fly ash collected from the interior of the boilers when they undergo maintenance and repairs.

Accordingly, Condition 7.4.11(c) has been added to the CAAPP permit to address temporary stockpile storage of fly ash and handling of such fly ash for off-site shipment because such activities are addressed under the Operating Program required by Conditions 5.2.4 and 35 IAC 212.309(a). Since this approach also addresses malfunctions or breakdowns and associated repairs, there was no longer a need for a separate contingency plan for those situations. Condition 7.3.4(b)(iii) was removed from the permit and subsequent conditions were appropriately renumbered.

Midwest Generation previously submitted a revised Fugitive Dust Plan or Operating Program for the Waukegan Station to the Illinois EPA shortly following issuance of the initial permit. Although public review of Operating Programs is not specifically required by 35 IAC 212.312, the program submitted by Midwest Generation has been and is available for inspection by the public under Illinois' Freedom of Information Act. As part of the reopening of the CAAPP permit for the Waukegan Station, at which time the control measures record is expected to be incorporated by reference into the updated Title V permit, the current Operating Program will be made available for review in the document repositories for the public comment period.

Comment 56:

Under Condition 7.1.5(b) of the CAAPP permit, Midwest Generation may now use solid fuels other than coal at the Waukegan Station. It is not clear from that condition what this means, however. The permit should include information on exactly what other solid fuels would be used at the station. In particular, is Midwest Generation already using solid fuels other than coal at this plant? What solid fuels does Midwest Generation intend to use in the future?

Response: Condition 7.1.5(b) does not provide that Midwest Generation may now use solid fuels other than coal at the Waukegan Station. Rather, this condition was revised to better reflect the wording of the relevant state emission standards that apply to the coal boilers at the Waukegan Station. In particular, these boilers are subject to emission standards for PM and SO_2, at 35 IAC 212.202 and 214.141 respectively, for fuel combustion emission units using or burning "solid fuel." These emission standards are applicable to the boilers as coal is a solid fuel.

In fact, the only solid fuel burned by these boilers is coal. The Illinois EPA is not aware of any plans to begin supplementing this coal with another solid fuel. Before this could occur, Midwest Generation would likely have to obtain an air pollution control construction permit for the changes to the Waukegan Station that would be needed to handle a solid fuel other than coal.

Comment 57:

The following comments conveyed concerns about the reduction in general reporting requirements, which are consolidated into this single comment for purposes of the response.

It is troubling that this draft permit relaxes critical testing, monitoring, recordkeeping and reporting requirements. How are we supposed to know when the Waukegan Station exceeds emission limits and endangers public health, if these standards are relaxed. How is it fair to the residents of Waukegan, and other communities in Lake County, if unsafe pollution levels are not caught for weeks or months because this permit allows Midwest Generation to file reports less frequently.

I would like to tell why I oppose this draft permit. I believe that it will allow the power plant to violate the Clean Air Act. The Illinois EPA needs, in my opinion, to environmentally protect. It does not make any sense to allow not only excessive pollution, mercury, and SO_2, and other pollutants, but a reduction in the reporting by the plant operator to report the amounts of pollution. Waukegan suffered, before the Illinois EPA existed, from environmental degradation, but now we are in the area where the state and USEPA are charged with protecting the environment and protecting residents, not only myself, but all of the residents and visitors here.

Response: "Critical requirements" of the permit have not been relaxed. While changes were made to conditions of the initial permit for testing, monitoring, recordkeeping and reporting, the majority of these changes were the result of specific requirements in permit conditions which were appealed by Midwest Generation. The Illinois EPA and Midwest Generation discussed each of the appealed requirements in detail, negotiating changes which were agreeable to both the Illinois EPA and Midwest Generation and revised affected conditions accordingly. The Statement of Basis provided details on the permit conditions that were revised and explained the reasons for the significant changes. The changes made to requirements for testing, monitoring, recordkeeping and reporting would not allow exceedances of emission standards to go unnoticed or prevent appropriate response by the Illinois EPA and/or USEPA.

Comment 58:

At the beginning of the hearing, it was explained that the draft permit would increase the startup times for the boilers, from 6 hours to 20 hours for Unit 7 and 23 hours for Unit 8. This is troubling. Why does it need to go up so much? How many extra tons of pollutants might be introduced into our air if Midwest Generation is allowed to go nearly a whole extra day without monitoring or meeting emission limits?

Response: The time it actually takes to startup the boilers has not actually been increased. Rather, the time periods addressed in this comment relate to the nature of the records required for startups. In the initial CAAPP permit, Condition 7.1.9(g) would have required more extensive recordkeeping for startups lasting longer than six hours. This was based on the presumed understanding that a startup lasting longer than six hours would be atypical, so that something potentially caused the startup to be prolonged. During settlement discussions, Midwest Generation provided the timelines for actual durations of startup of the boilers in the past several years.[63] These times were reviewed by staff familiar with utility boilers, compared with the durations of startups for other utility boilers in Illinois, and were then used to define the duration of typical boiler startups at the Waukegan Station.

[63] **Using information on the duration of actual startups over the past several years, which was not available when the initial CAAPP permit was prepared, was a reasonable way to establish the duration of typical startups of the boilers at Waukegan Station.**

Condition 7.1.9(g) then requires Midwest Generation to keep additional documentation and explanation for startups that take longer than the typical startup.

As to the concern that additional emissions are being allowed, this change does not affect emissions. Changing the time period used to define a routine startup in Condition 7.1.9(g) only affects when certain additional records must be kept. The Waukegan Station continues to be required by Condition 7.1.3(b) to conduct startups in accordance with written procedures which are developed to minimize emissions during startups, including use of auxiliary fuel burners during startups and timely energization of electrostatic precipitators. These requirements have not been changed and are now accompanied by additional requirements under the MATS rule that address actions that be taken during startups to minimize emissions.

Comment 59:

Immediate reporting for opacity over 30 percent would be changed from five to eight or more 6-minute averaging periods in a two-hour period. That is quite an increase in timing.

Response: The percentage change in the criterion for event-specific reporting for opacity exceedances appears large because short periods of time are involved. Event-specific reporting is still required for exceedances with an aggregate duration that is less than one hour.

Comment 60:

Opacity observations would be changed from annually to every three years. Annually is not that often. Why would it be changed?

Response: In Conditions 7.2.7(a), 7.3.7(a) and 7.4.7(a), the frequency for opacity observations based on Reference Method 9 was revised from annual to every three years because Conditions 7.2.8(b), 7.3.8(b) and 7.4.8(b) were also revised to require Method 22 observations for visible emissions from each affected operation or process at least once each calendar year.[64] The requirement for conducting Method 9 opacity observations at least every three years, which ensures that the opacity of emissions from all affected operations and processes, including units for which visible emissions are not ordinarily present, is determined at least once during the permit term. The lesser frequency of such opacity observations was deemed an appropriate trade-off for the increased visible emission observations generated by the new inspection regimen. Accordingly, the revised permit continues to require appropriate observations for subject operations and processes on an annual basis.

Comment 61:

[64] The conditions in the issued CAAPP permit for the required annual observations now implicitly recognizes that while there are certain emission units that do not tend to emit any visible emissions, other units will tend to emit some levels of visible emissions during normal operation. For each subject unit, Midwest Generation has the option of either performing observations for visible emissions consistent with USEPA Method 22 or observations for opacity by USEPA Method 9. However, if it chooses to conduct observations for visible emissions and visible emissions are present, it must either take corrective action within two hours to eliminate visible emissions or conduct opacity observations within one week.

This permit would allow for alternative fuel, such as tires to be burned. Tires have additional toxins. Is Midwest Generation burning tires? If they are not, why not take it out of the permit? If they are burning tires, what additional controls are in place to handle the additional toxins?

Response: Coal is the only solid fuel currently burned by Midwest Generation in the boilers at the Waukegan Station. The Illinois EPA is not aware of any plans to begin supplementing this coal with another solid fuel. Before this could occur, Midwest Generation would likely have to obtain an air pollution control construction permit for the changes to the Waukegan Station that would be needed to handle a solid fuel other than coal.

7. Compliance/Enforcement

Comment 62:

The CAAPP permit for the Waukegan Station must include a compliance schedule for documented opacity violations. In the present proceedings, the applicant has certified compliance with all the requirements that apply to these facilities. In the Significant Modification of the CAAPP permit, Illinois EPA appears to have accepted this certification, and consequently did not incorporate any schedule of compliance or other remedial measures in the permit. Nonetheless, there is an ongoing enforcement action by the USEPA and the Illinois Attorney General against Midwest Generation over opacity violations at the Waukegan Station, among others. (*U.S. v. Midwest Generation, LLC*, No. 09-cv-05277, Complaint (August 27, 2009).) Illinois EPA may not ignore the record of continuous and ongoing opacity violations established through a federal and state enforcement action and fail to assure compliant operations at these facilities as required by the Clean Air Act and regulations thereunder.

A fundamental purpose of the Title V permitting program is to ensure that regulated entities comply with requirements under the Clean Air Act. Section 504(a) of the Clean Air Act further provides that each Title V permit "…shall include enforceable emission limitations and standards, a schedule of compliance, [submission of the results of any required monitoring], and such other conditions as are necessary to assure compliance with applicable requirements of this Act … ."[65] In addition, Section 503(b)(1) of the Clean Air Act mandates that regulations for Title V permit programs require the permit applicant to "submit with the permit application a compliance plan describing how the source will comply with all applicable requirements." The term "applicable requirement" is very broad and includes, among other things, any standard or requirement under Section 111 of the Act or "[a]ny term or condition of any preconstruction permit" or "[a]ny standard or other requirement provided for in the applicable implementation plan approved or promulgated by EPA through rulemaking under title I of the [Clean Air] Act." 40 CFR 70.2(2)(1). Accordingly, applicable requirements include the requirements of state implementation plans ("SIPs").

Pursuant to Section 503(b) of the Clean Air Act, a Title V permit applicant must disclose its compliance status and either certify compliance or enter into an enforceable schedule of compliance to remedy violations. 40 CFR 70.5(c)(8) and (9)). If a facility is in violation of an applicable requirement at the time that it receives an operating permit, the facility's permit must include a

[65] Under 40 CFR 70.1(b), each regulated Title V source must obtain a permit that includes provisions that "assures compliance by the source with all applicable requirements."

compliance schedule. *See* 40 CFR 70.5(c)(8)(iii)(C). The only exemption is if the reported violation has been corrected prior to permit issuance. Section 501(3) of the Clean Air Act defines a compliance schedule or a "schedule of compliance" as "a schedule of remedial measures, including an enforceable sequence of actions or operations, leading to compliance with an applicable implementation plan, emission standard, emission limitation, or emission prohibition."

A state or federal Notice of Violation or an ongoing enforcement action are sufficient demonstrations of violations to trigger the requirement for a compliance schedule. "[I]ssuance of these NOVs and commencement of the suit is a sufficient demonstration to the Administrator of non-compliance for purposes of the Title V permit review process." *NY PIRG v. Johnson*, 427 F.3d 172, 180 (2005); *see also NY PIRG v. Whitman* 321 F.3d 316, 334 (2003)

Thus, if a power plant is subject to an enforcement action for violation of SIP requirements, the plant's operating permit must include an enforceable compliance schedule designed to bring the plant into compliance with those requirements. The plant is then bound to comply with that schedule or risk becoming the target of an enforcement action for violating the terms of its permit—in addition to the original violation that triggered the need for a compliance schedule. In the present case, there is both a Notice of Violation and an ongoing enforcement action over the opacity violations at Waukegan Station. (*U.S. v. Midwest Generation, LLC*, No. 09-cv- 05277, Complaint (August 27, 2009).) Because of these established violations of opacity violations taking place at the Waukegan Station, the Title V permit must include a compliance schedule for opacity. 40 CFR 70.5(c)(8)(iii)(C).

Response: This comment raises an issue that is beyond the scope of this modification proceeding. More specifically, the comment contends that the revised CAAPP permit for resolving the administrative appeal must include or incorporate a compliance plan into its terms because of the existence of a prior Notice of Violation and a related complaint establishing violations of opacity requirements.

These issues were addressed by the Illinois EPA in the initial CAAPP permit issued in 2006, as the CAAPP process for evaluating initial (and renewed) CAAPP permits contemplates a comprehensive permit review, including the submission of an application containing a compliance plan.[66] However, the Title V process for permit modifications occurring during the permit term does not provide for a comprehensive review of a planned permit revision, such that a compliance schedule/plan must be addressed anew for all applicable requirements. Rather, the permitting process for modifications is tailored only to the changes being made to the permit. In the case of this significant modification, permit review is thus limited to the significant changes being made to the permit.[67]

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[66] *See generally,* 415 ILCS 5/39.5(5)(a) through (j); 415 ILCS 5/39.5(5)(m).

[67] Interestingly, the scope of review is explicitly recognized in the CAAPP program in the context of permit reopenings; *see,* 415 ILCS 5/39.5(15)(c); but is less clear on the issue for permit modifications. USEPA's Part 70 regulations are similarly vague. *Compare, 40 CFR 70.7(e)(4) with 40 CFR 70.7(f)(2).* However, in the preamble to the original Part 70 rulemaking, USEPA recognized that a narrower scope of permit review is appropriate for significant modifications. *See generally,* 57 FR 32250-01, Operating Permit Program (July 21, 1992). In an initial overview discussion, USEPA stated that upon receipt of an application for significant modification, the permit authority "would review only the specific changes proposed in the application." *See,* 57 FR at 32257,

In this instance, the draft Significant Modification does not plan to change the permit's original terms relating to the emission standards applicable to opacity, nor does it otherwise implicate the need for an evaluation of compliance with such emission standards. As the source did not challenge the emission standards for opacity set forth in the issued permit, and as no additional revision regarding such opacity standards was required by applicable law, no part of the permitting revisions being undertaken in this action relate to the broader issue raised by the comment.

Without waiving this procedural defect in the comment for purposes of the current proceeding, and in the interests of correcting an apparent misunderstanding potentially shared by other members of the public, the Illinois EPA will provide its perspective on the issue raised by the comment. Regardless, the central premise of the comment is misplaced. The prior existence of enforcement notices, or the filing of a related complaint, cannot serve as a sole basis for demonstrating the applicability of a requirement under Title V.

The comment cites to two federal court rulings interpreting when a petitioner objecting to a Title V permit meets the legal standard for "demonstrating" a permit violation. Both cases, *NYPIRG v. Whitman,* 321 F.3d 316 (2nd Cir. 2003), and *NYPIRG v. Johnson*, 427 F.3d 172 (2nd Cir. 2005), originated in the Second Circuit Court of Appeals and provided the earliest examination of the legal issue.[68] In each case, the federal appeals court held that USEPA was compelled to object to the permits as a result of evidence deemed sufficient to demonstrate a permit violation.[69] Of relevance here, the court's ruling in *NYPIRG v. Johnson* found that the state's notice of violation and commencement of suit was sufficient evidence of non-compliance to warrant a USEPA objection to the permit.[70]

Section II, Summary of Final Rules, (E) Permit Issuance and Review, (5) Permit Revision. Observing the differences between the types of permitting actions under Title V, USEPA later noted that "most significant modifications should be less complex than initial permits or renewals, and the process need only focus on the changes to the permit rather than repeat any more comprehensive analysis of the source." *See,* 57 FR at 32289, Section IV, Discussion of Regulatory Changes, (G) Section 70.7 – Permit Issuance, Renewal, Reopenings and Revisions, (2) Permit Revisions. Lastly, in a discussion of the public petition requirements, USEPA noted: "Public objections to a draft permit, permit revision or permit renewal must be germane to the applicable requirements implicated by the permit action in question. For example, objections addressed to portions of an existing permit that would not in any way be affected by a proposed permit revision would not be germane." *See,* 57 FR at 32290, Section IV, Discussion of Regulatory Changes, (G) Section 70.7-Permit Issuance, Renewal, Reopenings and Revisions, (5) Public Participation.

[68] The first case involved USEPA's refusal to object to three draft Title V permits which USEPA had conceded did not comport with certain procedural requirements (e.g., a deficiency in the public notice process). The second case involved USEPA's refusal to object to a Title V permit on the grounds that it did not contain a compliance schedule, even though the state had previously issued a notice of violation and filed suit against the source for the alleged non-compliance.

[69] In *NYPIRG v. Whitman*, the Court reasoned that because USEPA had acknowledged procedural deficiencies with the permit, it was "not a case in which the EPA remained unconvinced [that the petitioner demonstrated non-compliance]." *Id.* at 321 F.3d at 333.

[70] *Id.* at 427 F.3d at 180. The court reasoned that the state agency was compelled by state law to initiate enforcement for "violations," not mere allegations, and that the state agency's expertise in regulating sources provided a certainty to

In the time since those rulings, USEPA has moved in a markedly different direction. Recent petition responses by USEPA reveal this dominant trend.[71] While enforcement notices or complaint filings can be considered a relevant factor in determining whether a Title V permit needs to include a compliance plan, the mere occurrence of the notice or suit, without more, is not determinative.

According to USEPA, other considerations must be weighed in evaluating if a source is not in compliance with an applicable requirement and therefore requires a compliance plan. Factors that are outlined in these petition responses include: whether the source disputes the alleged violations, the availability of legal defenses by the source that would potentially affect the allegations and the nature of any disputed legal questions surrounding the allegations. Other factors cited in recent responses is the consideration of how the Clean Air Act's enforcement and permitting authorities interact with one another, including the inherent "constraints" of the Title V process that may warrant deferring disputed allegations to the enforcement process.[72]

USEPA relied upon one or a combination of factors in all of the orders referenced above. In each one, an NOV or a complaint filing had occurred at one point or another in the process, yet USEPA found sufficient evidence to uphold a state permit authority's decision foregoing a compliance schedule for a Title V permit.

Judicial review of the legal issue has shifted away from the earlier Second Circuit's rulings as well. Four of the petition responses mentioned here were subsequently affirmed on appeal by the Sixth,[73] Seventh,[74] Tenth[75] and Eleventh[76] Circuit Courts of Appeals. When read

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its conclusions of violations that could not be minimized by USEPA in the Title V process.

[71] ***See, In the Matter of Public Service Company of Colorado*****, d/b/a Xcel Energy – Pawnee Station, Permit No. 96OPMR129, issued by the Colorado Dept. of Public Health and Environment, EPA Order dated June 30, 2011;** ***In the Matter of United States Steel Corporation*** **– Granite City Works, Permit No. 96030056, issued by the Illinois EPA, EPA Order dated January 31, 2011;** ***In the Matter of BP Products North America, Inc.*** **– Whiting Business Unit; Permit No. 089-25488-00453, issued by Indiana Dept. of Environmental Management, EPA Order dated October 14, 2009;** ***In the Matter of Cemex, Inc.*****, Lyons Cement Plant; Permit No. 95OPBO82, issued by Colorado Department of Public Health and Environment, EPA Order dated April 20, 2009;** ***In the Matter of Georgia Power Company,*** **Bowen Steam-Electric Generating Plant** ***et al.*****, various permits issued by Georgia Environmental Protection Division, EPA Order dated January 8, 2007;** ***In the Matter of Midwest Generation, LLC,*** **Waukegan Generating Station, Petition No. V-2006-2 (EPA Order dated June 14, 2007); Joliet and Will County Generating Stations, Petition No. V-2005-2, (EPA order dated June 14, 2007); Fisk and Generating Stations, Petition No. V-2005-1, (EPA Order dated June 14, 2007); Fisk, Crawford, Joliet, Will County and Powerton Generating Stations, Petition No. V-2005-3 (EPA Order dated June 20, 2007); and** ***In the Matter of Kentucky Power Cooperative, Inc.*** **(Hugh L. Spurlock Generating Station), Petition No.IV-2006-4 2007), (August 30, 2007, at 13-18.**

[72] ***See, In the Matter of Public Service Company of Colorado*****, EPA Order at 6 (June 30, 2011),** ***citing Sierra Club v. EPA,*** **557 F.3d 401, 405-412 (6th Cir. 2009);** ***In the Matter of United States Steel Corporation,*** **EPA Order at 25 (January 31, 2011).**

[73] ***See, Sierra Club v. EPA,*** **557 F.3d 401 (6th Cir. 2009).**

[74] ***See, Citizens Against Ruining the Environment v. EPA,*** **Nos. 525 F.3d 670 (7th Cir. 2008).**

[75] ***See, WildEarth Guardians v. EPA*****, 728 F.3d 1075 (10th Cir. 2013).**

[76] ***See, Sierra Club v. Johnson,*** **541 F.3d 1257 (11th Cir. 2008)**

together, the court rulings recognize the reasonableness of USEPA's multi-factored approach in attempting to balance the goals of Title V permitting and enforcement. As observed in the *Citizens Against Ruining the Environment v. EPA* ruling, the federal permitting scheme is meant to complement enforcement under the Clean Air Act, not take the place of it, with the former operating under certain legislative constraints that, by design, are not limited by the latter.[77] But the rulings also represent a sound rejection of the earlier reasoning by the Second Circuit. This is likely due to the latter's failure to reconcile the use of an NOV as a basis for demonstrating noncompliance for purposes of Title V with contemporary judicial reluctance to accept an NOV as final agency action.[78]

Neither the NOV issued to the source by USEPA in 2007, nor the complaint originally filed in 2010 by USEPA, the Attorney General's Office and intervening plaintiffs, "established" violations of the opacity requirements, as claimed by the comment. The documents simply alleged violations. More fundamentally, as the basis for the comment is tied solely to the existence of the NOV and complaint, it does not find any support amid the persuasive weight of legal authority that now exists. For this reason, the comment has not demonstrated that the revised CAAPP permit needed to include a compliance plan for the opacity of the emissions from the coal-fired boilers.

Even ignoring the fact that Title V forecloses a threshold inquiry into the issue of alleged opacity violations in this proceeding, any renewed consideration of the factors outlined by USEPA's petition responses would only reaffirm the Illinois EPA's decision in 2006. At this juncture, the NOV and complaint are now several years old. Since that time, pretrial litigation occurring over two lengthy intervals has significantly eroded the alleged New Source Review violations. The alleged opacity violations for the source apparently remain intact but there is nothing to suggest that they are any less contentious or attestable in nature than their counterpart NSR allegations.

If the case is eventually resolved through a negotiated settlement or legislation, its conclusion could reach well into the next permit term.[79]

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[77] *Infra,* 525 F.3d at 678-679. The Court noted that the investigative or fact-finding "mechanisms" that are the inherent attributes of enforcement, including its use of discovery and contested case hearings and procedures, are not at the ready disposal of permit authorities in the Title V permitting process. *See also, Sierra Club v. Johnson,* 541 F.3d at 1266 (ambiguity of Title V "demonstration" requirement is a "product of the broad role [that] the provision plays within the Title V permitting scheme." * * * Given the large number of potential issues that can be challenged under this provision, it makes sense Congress did not attempt to impose a one-size-fits-all approach and instead elected to afford the agency some discretion in evaluating the merits of permitting disputes").

[78] *See, WildEarth Guardians v. EPA*, 728 F.3d at 1083 (court was "not persuaded by the Second Circuit's contrary conclusion that an NOV suffices to demonstrate non-compliance {case citation omitted) since this conclusion fails to adequately take into account the preliminary nature of an NOV"); *see also, Sierra Club v. Johnson,* 541 F.3d at 1268 (refusing to distinguish between a "finding" of violation based on "any information available" from a USEPA process of "leveling allegations against any party it perceives to be violating clean air requirements. * * * [an NOV] "is simply one early step in the EPA's process of determining whether a violation has, in fact, occurred""(citing EPA order)).

[79] In the event of either a negotiated consent order or an adjudicated order, the Illinois EPA would expect to revise or reopen the CAAPP permit to include relevant emission-related requirements, if any.

Regardless, the extent of liability by the source for the opacity allegations is unpredictable. Any such liability could be shaped by at least two defenses available to the source: one stems from permitted authority to continue operation during periods of startup or malfunction events, as authorized by 35 IAC Part 201, Subpart I, while the other is an exception available for specified opacity in excess of the applicable standard "for a period or periods aggregating 8 minutes in any 60 minute period," as authorized by 35 IAC 212.123(b). A particularly challenging legal question posed by the latter exception could center on potential differences in methodology for addressing opacity readings, as measured by a continuous opacity monitor, for the period or periods aggregating 8 minutes.[80]

Notwithstanding the potential for continued delays in a final enforcement resolution, the factors discussed above would continue to suggest that the legal uncertainties associated with the alleged opacity violations are more appropriately addressed in the enforcement arena than through Title V permitting. As observed in a couple of the court rulings, the federal permitting program has certain limitations that a state or federal enforcement process does not possess. Similar constraints are relevant when the approved Title V program is considered within the framework of existing state law.[81]

Additionally, introducing a compliance schedule into the present Title V modification process would pose undesirable consequences. Separate state and federal proceedings could lead to two possible outcomes, which the *Citizens Against Ruining the Environment* ruling similarly contemplated, and a state permitting dispute could potentially interfere with the objectives and/or use of resources employed by enforcement authorities in the federal enforcement action. Of more immediate impact, it would almost certainly spur another round of litigation by multiple parties before the Pollution Control Board. Such a development is unnecessary and, aside from threatening to undermine settlement efforts to resolve the existing CAAPP appeals before the Board, it could divert administrative resources away from the planned permit re-openings.

Lastly, it should be noted that the absence of a compliance schedule from the revised CAAPP permit for this source does not act to shield or protect the source from federal or state enforcement. In this regard, the USEPA previously ruled that the initial CAAPP permit issued in 2006 did not include a non-applicability determination for opacity requirements, and consequently the source could not be shielded from an enforcement action for alleged violations of such requirements by virtue of a permit

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[81] **Illinois' CAAPP program was modeled after USEPA's Part 70 program and thus mirrors the complementary approach to permitting that was discussed in *Citizens Against Ruining the Environment*. Moreover, the CAAPP program is codified within Title X of the Act, which embodies provisions for environmental licensing that is traditionally deemed separate from the enforcement provisions of Title VIII. Among other things, state courts and the Pollution Control Board construe the Act as prohibiting the substitution of permitting for enforcement. *See, Panhandle Eastern Pipe Line Co. v. Illinois EPA,* 734 N.E.2d 18 (Ill.App. 2000), *citing EPA v. Illinois Pollution Control Board,* 624 N.E.2d 402; *ESG Watts, Inc. v. IEPA,* PCB 94-243 consolidated, 1996 WL156428 (March 21, 1996); *Village of Lake Barrington et al. v. IEPA and Village of Wauconda,* PCB 05-55, 2005 WL 946593 (April 21, 2005).**

shield.[82] This permit revision does nothing to disturb this finding.

Comment 63:

Why has Illinois EPA not sued the Waukegan Station for not complying with the CAAPP permit issued ten years ago?

Response: As previously discussed, the CAAPP permit issued in 2006 did not take effect. It was stayed in its entirety by the Illinois Pollution Control Board as a result of an appeal. Accordingly, the Waukegan Station was not required to comply with the initial CAAPP permit. However, the Waukegan Station continued to be subject to applicable emission standards and other requirements in federal and state rules, as well as requirements in the underlying State operating permits in effect at the time of the initial filing of the application.

Comment 64:

The Illinois EPA does not keep after this coal power plant. You are not doing what you are supposed to be doing.

Response: The conclusion drawn by the comment is clearly a matter of opinion. For its part, the Illinois EPA, together with the USEPA, is doing its best to "keep after" the Waukegan Station within the framework of the Title V permitting program. The Illinois EPA will continue to review the various reports that Midwest Generation must routinely submit for the Waukegan Station concerning its operation, emission monitoring systems, emissions and compliance. The Illinois EPA will also continue to conduct regular inspections of the plant to confirm the accuracy of submitted reports and to directly verify compliance with applicable requirements. As noncompliance is reported or identified, appropriate actions are initiated to address such noncompliance.

8. Public Hearing

Comment 65:

I am representing the Sierra Club at tonight's hearing. I am very troubled by the Hearing Officer's opening statement tonight. I'm very troubled that it discouraged members of the public from speaking, if their comments were going to be repetitious. There are maybe 150 members of the public that have shown up here tonight because they have concerns. They want to be heard. They want the Illinois EPA to hear their concerns in the same fair and appropriate manner that it hears industry concerns.

I expect that it took the Illinois EPA hours and hours, if not days and days, to meet with Midwest Generation and hear its concerns, those that would be resolved with this draft revised permit that we are here for tonight.

You have given the people here four minutes. Each person here four minutes is all they were asking for, but you have discouraged them from even using their four minutes, if they were going to be repetitious.

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[82] ***In the matter of Midwest Generation, LLC – Waukegan Generating Station, Permit No. 95090047, issued by the Illinois EPA,*** **USEPA Order, dated September 22, 2005, page 5.**

I would encourage the members of the public actually to take their four minutes, even if they're going to be repetitious. They have taken the time to be here after work, in the evening. They are not paid to be here. This is not part of their job. They are taking time away from their family and their personal lives. There is even a mother here who was rocking her baby to sleep, just so she could be here and be heard by the Illinois EPA here tonight.

This is a public hearing. The public deserves their four minutes, even if they are going to be repetitious.

Response: At permit hearings, it is a matter of common courtesy for members of the public to avoid repetitive comments. As observed by this comment, the members of the public at a hearing have taken time and effort to attend the hearing. It is desirable that the hearing not be unnecessarily prolonged as would be the case if individuals made identical comments. In this regard, the request by the Hearing Officer at the public hearing on September 2, 2015, that individuals avoid repetitious comments was not inappropriate. It should not be characterized as discouraging individuals from speaking but only as reminding individuals to be respectful of other people attending the hearing.[83]

The only tangible restriction placed on individuals at this hearing who wanted to speak was a four minute time limit. This was done to assure that all who wanted to speak could be accommodated. In fact, all attendees who wanted to speak were provided at least four minutes and several were provided additional time towards the end of the hearing.

Comment 66:

Why did the Illinois EPA not let the public speak openly about the Waukegan Station at the public hearing?

Response: The Illinois EPA did allow the public to speak openly about the Waukegan Station at the public hearing. The Illinois EPA's Hearing Officer in his opening statement did request that individuals avoid unnecessary repetition of statements made by earlier speakers. This request was made to help assure that all who wanted to speak would be able to. However, the only constraint that was actually placed on individuals was a four-minute time limit. This was done to assure that all who wanted to speak at the hearing would be able to. In addition, toward the end of the hearing, after all people who wanted to had an opportunity to speak, individuals who had already spoken were given the opportunity to speak further. Several individuals took advantage of this opportunity.

Comment 67:

At the public hearing, why was the Illinois EPA not letting us know about the health risks associated with the Waukegan Station?

Response: The Waukegan Station is subject to a variety of emission standards whose purpose is to protect air quality and public health. The purpose of the

[83] It should also be understood it is not the practice of the Illinois EPA's Hearing Officers to stop anyone from continuing to speak at a public hearing because their comments appear similar or identical to other comments and might be considered by some to be repetitive. This was not apparent at this hearing because individuals at the hearing were respectful of others at the hearing. While many individuals expressed concerns about similar issues, they generally did not make repetitive comments.

public comment period and public hearing and comment period on September 2, 2015 was to inform the public about the planned revisions to the CAAPP permit for the Waukegan Station and enable the public to provide the Illinois EPA with comments or concerns they may have about the planned revisions or permit action. As reflected by this Responsiveness Summary, the public hearing was successful in achieving this purpose as many people made comments. In addition, the Illinois EPA is responding to those comments and other comments submitted in writing by means of this Responsiveness Summary.

Comment 68:

I always hold other levels of government up to the standards of the great work that Illinois EPA generally does, with respect to sincere efforts to engage the public. However, as someone who has been in many Illinois EPA hearings, it is not acceptable to have hearing in Zion and not in Waukegan, where it would have been more accessible to the people in the impacted community, which as you well know is an environmental justice community.

As such, considerable effort should have been made, and the Illinois EPA should have gone the extra mile, to engage the community and make it as easy as possible for them to participate and determine their fate. Lake County Board Chairman, Aaron Lawlor, offered to help facilitate securing a location in Waukegan, but that was not accepted by your staff. I would like to know why you have chosen this location and not a location closer to the impacted community?

Response: The Illinois EPA attempted to hold the public hearing in Waukegan. The Illinois EPA contacted a number of facilities in Waukegan but was not successful in securing a suitable site in Waukegan for the hearing. In this regard, in addition to being in or as near to Waukegan as practical, the site for the hearing needed to be able to comfortably accommodate a large of number of people, with adequate parking; be available midweek until at least 11:00 pm; be at a location with which people would generally be familiar; and be willing to work with the Illinois EPA for the rental agreement and payment. Illinois Beach State Park met these requirements.[84]

Comment 69:

I am concerned about the lack of information. Had it not been for a representative of the Sierra Club coming on my radio show the public would not have known about this hearing. Does the Illinois EPA not send out information to the local media? Is there no open communication? That is exactly what this is? Is this really about keeping people ignorant, not providing the information that they truly need to know?

Wonderful people all came here to the public hearing to speak and share concerns. The Illinois EPA is not answering questions at tonight's public hearing. Therefore, I challenge you in public to come to the radio stations that I am involved with to speak of this in a more open forum and to inform the minority community. I think it is about time to have an open book here.

Response: The purpose of a public hearing for a permitting action is to provide an opportunity for the public to be informed about and provide comments on a planned action. This objective was achieved. The fact that many people were informed of the hearing by a means other than by direct published notice from

[84] **The public hearing that accompanied the issuance of the initial CAAPP permit for the Waukegan Station was held in Waukegan, at the Waukegan High School.**

the Illinois EPA is not unusual. After the Illinois EPA announces a public hearing and sends notices of the hearing to individuals on the list of people that want to be notified about proposed permit actions, those individuals often inform others about the planned hearing.

The Illinois EPA provided detailed information about this planned revision to the CAAPP permit for the Waukegan Station in the Statement of Basis that was prepared. The Illinois EPA has also appropriately responded to the specific public concerns presented during the public comment period for this permit proceeding by means of this Responsiveness Summary. It would be extraordinary for the technical staff of the Illinois EPA, if for no other reasons than time and resource constraints, to participate in a commercial radio program to discuss a permit proceeding.[85] Moreover, it is not clear that the issues that are involved in and relevant to this permit proceeding would make a very interesting radio program.

9. Miscellaneous Comments

Comment 70:

Has the Illinois EPA received any letter in support or against this draft permit from the Mayor of Waukegan, Wayne Motley? What is his stance on this?

Response: The Illinois EPA has not received comments from the Mayor of Waukegan concerning this permitting action.

Comment 71:

How many other coal-fired power plants in Illinois have permits that are ten years old?

Response: There are now eight coal-fired power plants in Illinois with initial CAAPP permits issued by the Illinois EPA that are now over 10 years old.[86]

G. USEPA COMMENTS WITH RESPONSES BY THE ILLINOIS EPA

USEPA Comment 1

The draft revised CAAPP permit would not specify a minimum set of control measures to be applied to coal handling, coal processing, and fly ash equipment to assure continuous compliance with applicable opacity and PM limits. The draft revised CAAPP permit would requires the Permittee to implement and maintain control measures to minimize Visible Emissions (VE) of PM from coal handling, coal processing and fly ash equipment, and provide assurance of compliance with the applicable emission standards in Conditions 7.2.4, 7.3.4 and 7.4.4.[87] The draft permit states that the Permittee shall implement and maintain "the control measures" for the affected operations, which apply to

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[85] The Illinois EPA is also now engaged in a reopening proceeding for the CAAPP permit for the Waukegan Station.

[86] In 2006, Illinois had 22 coal-fired power plants. Six plants of these plants have closed; the Wood River plant is scheduled to close shortly, and the Joliet plant is in the process of converting to natural gas. CAAPP permits are now in place for six of the remaining coal plants, the Coffeen, CWLP, Kincaid, Powerton, Newton and Waukegan plants. This leaves eight plants for which revised CAAPP permits still need to be issued.

[87] *See* Conditions 7.2.6, 7.3.6 and 7.4.6

coal handling, coal processing and fly ash handling equipment. Condition 7.2.6(a)(i) (emphasis added). The draft permit further requires the Permittee to submit to Illinois EPA a record of the established control measures for each of the affected operations within 60 days of permit issuance.[88]

As written, the draft CAAPP permit would not require the Permittee to use any specific control measures for coal handling, processing, and fly ash equipment. The draft permit would provide the Permittee to select any type of control measure(s), and provides the Permittee discretion to change those control measures. Therefore, the draft CAAPP permit does not comply with 40 CFR 70.6(a) because it does not contain sufficient operational requirements to assure compliance with the applicable opacity and PM limits for coal handling, coal processing and fly ash equipment.[89] In addition, the draft permit does not provide the public with the opportunity to meaningfully comment on the selected control measures.

To address these concerns, the Illinois EPA should revise Conditions 7.2.6(a)(i), 7.3.6(a)(i) and 7.4.6(a)(i) to specify the minimum set of control measures for the coal handling, processing, and fly ash handling equipment. The Illinois EPA should also revise Conditions 7.2.9(b)(i) and (ii), 7.3.9(b)(i) and (ii) and 7.4.9(b)(i) and (ii) to require review and approval by Illinois EPA of the control measures selected by the Permittee. Finally, in the reopening proceeding, the Illinois EPA should incorporate in the permit the specific control measures, including the pertinent information on the control measures (description, frequency, and other information necessary to demonstrate compliance with applicable limitations), for each emission point.[90]

Response: The substance of this and several other USEPA comments is beyond the scope of changes being addressed in this permitting action.[91] The subject requirements relating to control measures underwent public comment and USEPA review at initial permit issuance and were clearly ascertainable at that time. For reasons described elsewhere in this document, permit review for the modification procedures for resolving this CAAPP utility appeal is limited to the issues directly arising from the changes to the permit. Without waiving the procedural defect in the comment, and in the interests of avoiding any confusion or misunderstanding by the public, the Illinois EPA will share its general understanding of the issues raised by the comment.

The permit conditions addressed by the comment require Midwest Generation to implement control measures on the affected operations, as well as to "operate and maintain" those measures on an on-going basis.[92] The permit also requires Midwest Generation to create and maintain a list of the various control measures being implemented,[93] which are currently identified in the permit as moisture content of the coal and fly ash, dust

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[88] *See*, e.g., Condition 7.2.9(b)(ii).

[89] See, generally, Conditions 7.2.8, 7.3.8, and 7.4.8.

[90] This is appropriate since the current permit will require the submittal of full documentation to support the selected control measures

[91] **The other comments, or portions thereof, that appear to be beyond the scope of this proceeding are found in Comments 3, 4, 9, 10, 11 and 12. As with Comment 1 addressed here, the Illinois EPA will provide its general understanding of the issues raised by these other comments, without waiving any procedural defect relating to the same, in the interests of avoiding confusion or misinterpretation.**

[92] ***See*, Conditions 7.2.6(a)(ii), 7.3.6(a)(ii) and 7.4.6(a)(ii).**

[93] ***See*, Conditions 7.2.9(b), 7.3.9(b) and 7.4.9(b).**

suppression, enclosures and covers,[94] and to notify the Illinois EPA of revisions to the list.[95] The associated inspection and recordkeeping requirements[96] are designed to ensure that the control measures are being implemented. The combination of these control measures and related , inspections and recordkeeping establish the permit's approach to Periodic Monitoring for these affected operations.

The use of control measures by electric power plants and certain other sources for handling of bulk materials like coal is well known and of long-standing. Commonly employed as work practices, such measures act to minimize visible and fugitive emissions and thereby generally assure that a source complies with applicable emission requirements limiting the same. Recognizing their traditional use as work practice standards, the Illinois EPA incorporated them into the initial 2006 permit and they were retained in the negotiated revisions to the permit.[97] The use of control measures was deemed appropriate as one component of Periodic Monitoring for the affected operations,[98] providing a reliable and enforceable means of verifying compliance with the emission standards that apply to the affected operations (i.e., visible and fugitive emissions).[99, 100] The legal basis for the control measures is derived from the authority of Section 39.5(7)(a) of the Act, as the use of such control measures is deemed necessary to support Periodic Monitoring for the CAAPP permit. It is important to note that the permit does not compel or mandate the use, at any given time, of individual control measures. Such a proscription is neither supported by applicable regulations nor by a fact-specific demonstration showing that such use is necessary.

The nature of these permit requirements is analogous to certain emission control programs required by 35 IAC 212.309 and certain New Source

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[94] *See,* Conditions 7.2.1 and 7.2.2, Conditions 7.3.1 and 7.3.2, and Conditions 7.4.1 and 7.4.2.

[95] *See*, Conditions 7.2.9(b)(ii), 7.3.9(b)(iii) and 7.4.9(b)(iii).

[96] *See,* Condition 7.2.8 and 7.2.9, Condition 7.3.8 and 7.3.9, and Condition 7.4.8 and 7.4.9 respectively.

[97] As previously noted, the requirements for control measures in the revised CAAPP permit are substantially identical to those contained in the initial CAAPP permit. The changes being made to these conditions depict mostly stylistic changes to the language and do not modify or alter the substantive elements relating to control measures.

[98] The Illinois EPA acknowledged this reasoning in the Responsiveness Summary accompanying the issuance of the initial CAAPP permit, observing that it was requiring the on-going implementation of the work practices and that, together with inspection and recordkeeping, the requirements will assure compliance with periodic monitoring. *See,* Response to Public Comments for CAAPP Permit Applications for Midwest Generation *et al,* at 33 (September 29, 2005).

[99] *See,* Conditions 7.2.4, 7.3.4 and 7.4.4.

[100] The conditions contain adequate specificity by requiring the permittee to identify the type and designation of control measures, together with a description of the relevant emission points, that are in use, a description of primary control measures, together with a description and estimated frequency of application (if not continuous), and a description of secondary control measures and an accompanying description of the circumstances under which they would be sued. Such requirements are practically enforceable as a result of the permittee's obligation to implement and maintain the record of control measures, which must be initially submitted to the Illinois EPA after effectiveness of the condition and kept up-to-date, and by the monthly inspections. Notably, these contentions were raised in an earlier proceeding and were rejected by the USEPA. See, USEPA order responding to petitions, Midwest Generation (Fisk Generating Station).

Performance Standards.[101] Those programs typically require an affected source to identify best management (or good engineering) practices to minimize emissions as may be needed, or as appropriate, for site conditions. Within the regulatory framework, subject sources retain considerable latitude in selecting the type and suitability of control measures relative to circumstances that directly bear upon the usefulness and/or performance capabilities of those measures. Such flexibility enables sources to address varying types and degrees of site conditions, range of operation and changes in the characteristics of resulting emissions.

In the CAAPP permit, the Illinois EPA's approach to Periodic Monitoring for the affected operations and processes is similar to the regulatory framework described above. However, the Illinois EPA did not require a formal approval process for the selected control measure, or for subsequent changes to the list of control measures. In the absence of underlying regulatory requirements existing in federal or state law, mandating these additional requirements in a Title V permit is potentially outside the scope of Agency authority[102] and, further is arguably unnecessary given the purpose meant to be served by the control measures (i.e., Periodic Monitoring).

The comment also expresses concern regarding the absence of an opportunity for public comment on the control measures. The revised CAAPP permit, like the initial permit, requires the source to submit a list of control measures that will be operated and maintained within 60 days of permit issuance. Owing to the lack of permit effectiveness for the initial CAAPP permit, the source has yet to generate this record, so the comment is premature. Once the record is submitted to the Illinois EPA, it will be available for public viewing and inspection upon receipt of a request filed under Illinois' Freedom of Information Act.[103]

USEPA Comment 2:

The frequency of the required observations of visible emissions (VE) from coal handling equipment, coal processing equipment, and fly ash equipment is inadequate to assure continuous compliance with applicable opacity and PM limits. The draft revised CAAPP permit would contain inspection requirements for the coal handling, coal processing, and fly ash equipment.[104] These include monthly inspections of the coal handling and coal processing equipment, and weekly (and monthly) inspections of the fly ash equipment. In addition, the

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[101] ***See,*** **40 CFR Part 60 Subpart Y.**

[102] **An attempt to impose such requirements would likely raise legal questions, including whether Title V permit authorities may create new substantive requirements and whether mandating the use of certain emission requirements constitutes improper rulemaking. To replicate, through a Title V permit, principal elements of a regulatory program that could not otherwise be imposed on a source as an applicable requirement would likely exceed the scope of gap-filling and/or other implied authorities available to Title V permitting agencies. It can be noted that the Illinois EPA will be reviewing relevant material generated pursuant to the permit (e.g., record of control measures) to assure, for purposes of any future permit action, that the use of control measures being implemented by the source is consistent with applicable permit requirements.**

[103] **Further, it is presently anticipated that the generated record will be incorporated by reference in the CAAPP permit by way of the reopening proceeding and would be available to the public as part of the administrative record for that permit action.**

[104] ***See*** **Conditions 7.2.6, 7.3.6 and 7.4.6.**

draft revised permit would require that the Permittee perform VE observations using USEPA Reference Method 22 once per calendar year.

Given that the majority of the affected equipment operates regularly throughout the year, it is not clear how the draft CAAPP permit inspection requirements and frequency of the required VE observations are adequate to yield reliable and accurate emissions data, as required by 40 CFR 70.6(a)(3)(i)(B), with respect to the applicable opacity and process weight rate PM limits

In the reopening proceeding, once Illinois EPA has the information regarding the control measures for different emission points, Conditions 7.2.8(b), 7.3.8(b) and 7.4.8(b) should be revised to include additional monitoring and/or testing to yield the reliable data that assures compliance on a continuous basis.

Finally, the Illinois EPA should provide in the Statement of Basis for this permitting action an explanation of how the control measures and monitoring requirements for each transfer point, coal pile, conveyor belt, and other points of fugitive emissions will assure compliance with all applicable opacity and PM limits. This should include a discussion of the relationship between monitoring frequency and applicable emission limits.

Response: This comment focuses narrowly on only one aspect of Periodic Monitoring for the subject equipment (i.e., monthly inspection requirement), while overlooking other aspects of the overall approach.[105] The requirements for Periodic Monitoring should be considered in their totality. One component of the required Periodic Monitoring should not be singled out without giving due regard to the other components of the required monitoring.

A key component of the Periodic Monitoring is that Midwest Generation must operate designated control measures for the equipment on an as-needed basis or, in other words, as necessary to assure compliance, whenever equipment is operating and material is being handled.[106] This obligation is codified in the permit, although various control measures have long been implemented at the Waukegan Station.[107]

The requirement to use control measures is accompanied by requirements for periodic verifications that must be formally undertaken by the source.

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[105] As observed with the previous comment, the Illinois EPA notes that the subject comment is beyond the scope of changes being addressed in this permitting action. The CAAPP procedures governing here restrict this proceeding to only those issues directly arising from the planned significant modifications to the initial permit issued in 2006.

[106] The fact that the equipment operates on a regular basis does not constitute a sufficient basis to require more frequent inspections, as suggested by the comment, when control measures must be used whenever equipment operates. Moreover, it is inaccurate to suggest that all equipment operates "continuously, 365 days a year." In fact, most of the equipment operates intermittently. For example, the unloading of silos can be limited by other factors not in the control of the Permittee. The duration of daily equipment operation is lower when only one of the boilers is operating and the other boiler is out for maintenance.

[107] Certain work practices are and will continue to be implemented for the subject equipment, independent of the CAAPP permit, for reasons related to worker safety, equipment reliability and longevity, and operational costs. The introduction of the requirement for control measures to the CAAPP permit is significant in that it codifies past and continuing practices to control dust and establishes a supporting means of oversight and recordkeeping.

Detailed records must be maintained for each instance in which a subject operation or process operates without the presence of the designated control measures.[108] Deviations from the requirement to operate and maintain control measures must also be reported.[109] The inspection and record-keeping requirements are the remaining components of Periodic Monitoring. The formal inspections, by design, will provide specific confirmation that the designated control measures are being properly operated and maintained. Records must be kept for each required inspection to document the operation and condition of the applicable control measures, as well as the performance of the inspection.[110]

It should be noted that the use of control measures is required independent of the informal verifications (or observations) of the subject equipment that are contemplated by the permit. Lapses in the use of such measures must be corrected by the Waukegan Station independent of the formal inspections that are required. Because the collective requirements relating to control measures should be adequate to verify implementation of the control measures, the imposition of a daily, formal observation is not necessary to provide Periodic Monitoring that satisfies Title V's requirements. For these reasons, the comment does not justify changes to the frequencies of the formal inspections specified by the permit.[111]

Moreover, more frequent observations for visible emissions would not provide useful information. Neither the applicable standards nor the permit prohibit visible emissions from the subject equipment. For purposes of Periodic Monitoring, the absence of visible emissions is a criterion that will act to simplify the periodic inspections for certain equipment, such as the coal silos, which are located in a closed building.[112] For such equipment, the absence of visible emissions will likely readily confirm proper implementation of control measures. If visible emissions are not present from such equipment, either during an initial observation for visible emissions or following timely repair, it would also be unproductive to require observations for the opacity of emissions by USEPA Method 9, as are necessary for equipment from which visible emissions are normally present.

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[108] Such records include a description of the event, probable cause of the occurrence, any preventative measures taken, and an explanation of whether the relevant opacity standards were exceeded. *See generally,* Conditions 7.2.9(e), 7.3.9(d) and 7.4.9(d).

[109] Occasions during which the subject equipment is not in compliance for more than a specified time require notification within 30 days. Otherwise, the deviation must be reported in a quarterly report. *See generally,* Conditions 7.2.10(a)(ii) and (iii)(A), 7.3.10(a)(ii) and (iii)(A), and 7.4.10(a)(ii) and (iii)(A).

[110] The inspections must document the date and time of the inspection, as well as the particular equipment being observed; the "observed condition" of the control measures, including both the "presence of any visible emissions or atypical accumulations of coal fines;" a description of the "maintenance or repair" of equipment relating to the control measures, as well as a review of pending recommendations from prior inspections; and a description of any corrective action, including whether such action occurred within two hours of discovery and returned the operation to normal (i.e., no visible emissions). *See generally,* Conditions 7.2.9(d), 7.3.9(c) and 7.4.9(d).

[111] Formal inspections of the coal handling equipment, coal processing equipment, and certain fly ash equipment are required monthly pursuant to Conditions 7.2.8(a), 7.3.8(a), and 7.4.8(a)(i), respectively. Inspections of fly ash load-out operations are required weekly pursuant to Condition 7.4.8(a)(ii).

[112] It is also expected that visible emissions will normally not be present for a number of other pieces of equipment. The transfer point from the railcar unloading pit to the coal transfer conveyor is located underground. Fly ash is transferred from the boilers with pneumatic conveying systems that operate under negative pressure.

In summary, the approach to Periodic Monitoring developed for the subject equipment in 2006, centering on work practice requirements for the use of control measures, was both sound and practical.[113] However, consistent with an earlier commitment to Region V, the Illinois EPA will re-evaluate this approach contemporaneous with the reopening proceeding.

USEPA Comment 3 – Condition 5.2.4

The operating program or "Fugitive Dust Plan" referenced in draft Condition 5.2.4 is required to be submitted to the Illinois EPA for review. Has Midwest Generation submitted this plan? When was the plan required to be submitted? As USEPA has provided in its responses to Title V petitions, if a fugitive dust plan is required to be submitted, the plan must be available for review by the public during the public comment period.

Response: Existing sources required to have Fugitive Dust Plans (or Operating Programs) were required by 35 IAC 212.310(b) to submit their initial plans to the Illinois EPA by May 11, 1993. A revised Fugitive Dust Plan for the Waukegan Station was most recently submitted to the Illinois EPA on March 21, 2006, shortly following issuance of the initial permit.[114] The plan has been and remains available for inspection by the public under the Illinois' Freedom of Information Act. As part of the reopening of the CAAPP permit for the Waukegan Station, at which time the control measures record is expected to be incorporated by reference into the updated CAAPP permit, the current plan will be made available for review in the document repositories for the public comment period.

USEPA Comment 4 – Condition 5.9.1[115]

In response to the Sierra Club's comments on the need for a compliance plan for past opacity violations, the Illinois EPA should consider providing a description of Waukegan Station's history of compliance or non-compliance, past Notices of Violations, etc..

Response: The Illinois EPA has responded to the relevant comment, which was

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[113] The initial CAAPP permit established a comprehensive regimen for Periodic Monitoring. In its consideration of Periodic Monitoring for the subject equipment, it was recognized that various combinations of requirements could serve to establish sufficient Periodic Monitoring, depending upon the nature of the equipment and the applicable emissions control requirements. In the case of the coal handling, coal processing and fly ash equipment, this consideration necessarily accounted for the type, function, placement and locations of these units and the straight-forward nature of the emission standards that apply to these units. *See,* Response to Public Comments for CAAPP Permit Applications for Midwest Generation *et al,* at 33 (September 29, 2005)("these requirements need not be identical for each unit" and "various combinations of the requirements will suffice depending on the nature of a unit and the emission control requirements to which it is subject.").

[114] 35 IAC 212.312 requires a Fugitive Dust Plan to be amended from time to time by the owner or operator of a source so that the plan is kept current.

[115] This comment and the remaining USEPA comments that follow were not part of the USEPA's initial comments on the draft of the revised CAAPP permit. USEPA subsequently provided some of these comments to the Illinois EPA after reviewing the comments on the draft permit jointly submitted by the Sierra Club and other environmental advocacy organizations. Other comments reflect USEPA's informal comments on a preliminary draft of a revised permit for the Coffeen Energy Center prepared in the reopening proceeding for that coal power plant in downstate Illinois.

submitted jointly by the Sierra Club and other environmental advocacy organizations. In that response, the Illinois EPA has included additional factual background on the opacity of emissions from the coal-fired boilers.[116]

USEPA Comment 5 – Condition 7.1.6:

What is the reasoning as to the reduced frequency for the combustion evaluations for the coal-fired boilers? Also, the Sierra Club has pointed out that the revised permit would no longer include language related to preventative measures that would be done as part of the evaluation. Relevant language from the MATS rule, to which the source is subject, should be incorporated into the permit so preventative measures and other related requirements are addressed. This will not only strengthen the provisions for combustion evaluations and tune-ups, but address concerns that have been raised.

Response: The frequency of combustion evaluations is one of the reasons that Midwest Generation appealed the initial CAAPP permit. Midwest Generation argued that it was unreasonable to require these evaluations on a quarterly basis and that less frequent evaluations would be more than adequate to ensure good combustion and compliance with 35 IAC 216.121, the emission standard for carbon monoxide (CO). In settlement discussions, it was agreed to address these concerns by reducing the required frequency for these evaluations to semi-annually. This compromise addressed the concerns of both parties. In this regard, performance of semi-annual combustion evaluations for the boilers, with evaluations involving the actions contemplated by the initial CAAPP permit, should reasonably assure compliance with the CO standard.

As observed by this comment, the coal boilers at the Waukegan Station are already subject to and must comply with applicable requirements of the MATS rules. Accordingly, "tune-ups" of the boilers must now be conducted every 36 or 48 months pursuant to 40 CFR 63.10005(e) and 63.100021(e) of the MATS rule.

However, it should be understood that the actual inclusion of these provisions of the MATS rule in this CAAPP permit, as requested by this comment, is not needed to make these requirements of the MATS rule applicable. It would only make it more apparent to the public and others that these requirements are applicable as these requirements would be reflected in the CAAPP permit for the Waukegan Station. As such, this addition to the CAAPP permit for the Waukegan Station is appropriate. However, because the scope of the current proceeding is constrained by the nature of settlement, this addition will have to take place in the Reopening Proceeding

USEPA Comment 6 – "Effectiveness" of Condition 7.1.7(a)(i):

Please verify that this condition is referring to itself with the language, "...after the effectiveness of this condition." Also, this language appears to be redundant as a result of the conditional approval of the CAM Plan, pursuant to which PM emission testing for PM is needed within 120 days of the

[116] It was not possible to include the suggested information in the Statement of Basis for this permit action. The Illinois EPA prepares Statements of Basis in conjunction with the issuance of draft CAAPP permits. If further explanatory information needs to be provided to explain or support the CAAPP permit that is issued, the Illinois EPA provides such information in a Responsiveness Summary or other document that is prepared in conjunction with issuance of the CAAPP permit.

effectiveness of the revised CAAPP permit.

Response: The cited language in this condition does refer to itself. This language is included in the revised permit to resolve and settle an element of the initial CAAPP permit that was appealed. In this regard, this language makes clear that if there is a further appeal of Condition 7.1.7(a)(i) and this condition continues to be stayed, the timing of the required testing of PM emissions of the coal-fired boilers pursuant to this condition would be tied to the resolution of that appeal.

However, as observed in this comment, the cited language has actually been made obsolete by the conditional approval of the CAM Plan in Condition 7.1.13-1(b) of the revised CAAPP permit. Condition 7.1.13-1(b) requires Midwest Generation to conduct PM emission testing for the coal-fired boilers within 120 days of the date that the revised CAAPP permit was issued.

USEPA Comment 7 – Provisions for "Prior Measurements" in Condition 7.1.7(a)(i):

Condition 7.1.7(a)(i)indicates that prior measurements, made after 2003, may suffice to satisfy this requirement. Is there a prior test that has been done?

Response: Like the language addressed by the above comment, the language addressing "prior measurements" is an artifact from the initial CAAPP permit. It has been made obsolete by the further PM emission testing required by the conditional approval of the CAM Plan.

Incidentally, recent testing for PM emissions for Boilers 7 and 8 show PM emissions well below the applicable state limits of 0.10 and 0.12 lb/mmBtu, respectively.[117]

USEPA Comment 8A – Condition 7.1.7(a)(ii):

The USEPA's *National Clean Air Act Stack Testing Guidance* (USEPA's Stack Testing Guidance[118]), provides that,

> The delegated agency must determine whether retesting is warranted; However, … the facility is responsible for demonstrating to the satisfaction of the delegated agency that the facility is able to continuously comply with the emissions limits when operating under expected operating conditions….
> USEPA's Stack Testing Guidance, page 16

The Illinois EPA should include an appropriate demonstration that explains how the boilers are in continuous compliance up to the level where re-testing for the boiler is needed and where the source continues to be in compliance unless the boiler operates at rate higher than 5 percent of the load.

Response: It is not appropriate for the Illinois EPA to attempt to provide the demonstration requested by this comment. As clearly expressed in USEPA's Stack Testing Guidance, Midwest Generation has the obligation to demonstrate to the Illinois EPA that the boilers are in compliance. If the boiler(s) are operated in such a way that emission testing is warranted to confirm compliance, the

[117] **Testing conducted on July 29, 2015 on Boiler 7 showed PM emissions of 0.0051 lb/mmBtu. Testing on August 20, 2015 on Boiler 8 showed PM emissions of 0.0242 lb/mmBtu**

[118] **USEPA, Office of Enforcement and Compliance Assurance, *Clean Air Act Stack Testing Guidance*, April 27, 2009, available at http://www3.epa.gov/ttnemc01/guidlnd/gd-050.pdf.**

Illinois EPA is authorized to require that such testing be conducted.[119] It would be inconsistent with the Illinois EPA's role in overseeing the operation of the Waukegan Station to now prepare a demonstration suggesting that no circumstances could arise in which the Illinois EPA would ever request that additional emission testing be conducted .

Moreover, this comment presumes that the criterion in Condition 7.1.7(a)(ii) reflects a determination by the Illinois EPA that is related to the load of the boilers and their compliance status. In fact, this criterion is intended to ensure that Midwest Generation conducts emission testing for the boilers at a high load with explicitly stated consequences, i.e., a requirement for additional testing, in the event that testing is not conducted at a sufficiently high load so that the criterion in this condition is met. As such, this condition is fully consistent with the principle expressed in USEPA's Stack Test Guidance that, to the fullest extent possible, emission testing should be conducted under conditions that are representative of those that pose the greatest challenge to the ability of a unit to meet applicable limits.

For this purpose, the criterion in Condition 7.1.7(a)(ii)_is tailored to address the operation of coal-fired utility boilers in Illinois, as it considers both the actual load of the boilers and the amount of time that they operate at "elevated loads." This is considered appropriate because the potential loads of utility boilers in Illinois are affected by seasonal weather conditions. In addition, the actual loads of the boilers are set by the independent system operator, which supervises the operation of the available generating units in a region as necessary to reliably meet the demand for electricity. In this regard, the circumstances surrounding the loads at which utility boilers operate is different than the level of operation of units at manufacturing plants, where the management of those plants set their own operating schedules and operating rates.

USEPA Comment 8B – Condition 7.1.7(a)(ii):

In Condition 7.1.7(a)(ii), the duration of time that a boiler could be operating at a rate higher than 5 percent of the greatest load at which it was previously tested, would be increased from 30 to 72 hours by the draft revised permit. For consistency with guidance provided by USEPA, the source must be in continuous compliance with applicable requirements at all times. Operating at a load above the maximum load tested and/or the maximum load that the source was able to provide a demonstration of compliance, a boiler is not necessarily in compliance with limits whether it operates more or less than 72 hours at such load. We suggest that the Illinois EPA remove or significantly reduce the length of time that a boiler may operate at a load where there is uncertainty of compliance. We offer revising the 72 hours down to 1 hour.

Response: Recent emission testing for PM emissions of the boilers at the Waukegan Station, as summarized above, shows that it would not be reasonable to limit operation of the boilers to the loads at which testing was conducted, as suggested by this comment.[120, 121] Moreover, in practice, USEPA commonly considers

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[119] Specific provision for such testing "upon request" by the Illinois EPA is provided for by Condition 7.1.7(a)(iv).

[120] In addition, limiting the operation of the boilers to the loads at which emission testing has been conducted would completely disregard the practical considerations that are present when testing is conducted for utility boilers, as previously discussed.

[121] The pollutant of concern for these provisions for emission testing is PM, not CO. This is because the PM emissions of the boilers are controlled by electrostatic

PM emission testing conducted at least at 90 percent of the maximum operating rate of an emission unit to be representative of operation at the maximum rate. This practice is consistent with USEPA's Stack Testing Guidance, as this guidance formally recommends that testing be appropriately conducted under representative operating conditions of emission units. This guidance does not state that emission testing must be conducted at the maximum load at which the tested emission unit would subsequently ever be operated, as implied by this comment.[122]

USEPA Comment 9 – Condition 7.1.7(b)

USEPA's Stack Testing Guidance recommends that a source test at a level that would represent the highest emissions. This guidance also acknowledges practical aspects of conducting emission testing and recognizes that it is not always possible to replicate worst-case scenarios for testing. However, emission testing should include a demonstration that the source will be able to comply with applicable limits at all times, i.e., some form of correlation with applicable limits being met at worst case conditions). In this regard, the source is responsible for demonstrating to the satisfaction of Illinois EPA that emission units are able to comply with the applicable emissions limits when operating under expected the range of operating conditions. If necessary, the Illinois EPA can include language in the permit that directly prohibits the boilers from operating at loads higher than the loads at which tested was conducted. Otherwise, any emission testing that is done at less than the maximum load of a boiler, should include a technical description of how the boiler can comply with applicable limits at the higher load that is considered to be the maximum capacity for that boiler.

Response: The issue posed by this comment is whether a demonstration should accompany the reports for the required emission testing, so as to directly address the greatest load on the boiler for which the test reasonably should be

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precipitators (ESPs). As a general matter, the performance of ESPs has a negative relationship with flue gas residence time or load.

[122] The USEPA's Stack Testing Guidance does acknowledge that a permitting authority, presumably in appropriate circumstances, may restrict the operation of an emission unit based on the conditions under which emission testing was conducted.

> **This guidance does not affect the ability of delegated agencies to prohibit a facility from operating at levels of capacity different from the level used during the stack test, or to restrict production to reflect conditions equivalent to those present during the stack test.**
> **USEPA's Stack Testing Guidance, p. 16.**

At the same time, the USEPA's Stack Testing Guidance also indicates that the decision whether further testing should occur is one for which the permitting agency must make, presumably based on its experience and judgment,

> **…the facility is not required automatically to retest if the facility's operating conditions subsequently vary from those in place during the performance test. The delegated agency must determine whether retesting is warranted; however, in both instances, the facility is responsible for demonstrating to the satisfaction of the delegated agency that the facility is able to continuously comply with the emissions limits when operating under expected operating conditions, taking into consideration the factors discussed above ….**
> **USEPA's Stack Testing Guidance, p. 16.**

considered to show the ability to meet applicable emission limits.[123] As discussed, as the permit effectively requires Midwest Generation to conduct testing in the maximum load range of the boilers at the highest load that is practical at the time that emission testing is scheduled to be conducted, the demonstration requested by this comment is not needed. In this regard, the concern expressed by USEPA's Stack Testing Guidance is that testing not be conducted at loads that are not representative and it does not address the capability of an emission units to comply with applicable emission standards.

USEPA Comment 10 – Condition 7.1.9(g)(ii)(A):

Since the boilers at the Waukegan Station are subject to the MATS rule, the relevant language from 40 CFR 63.6(e), which addresses operation consistent with safety and good air pollution practices as well as maintaining necessary records with respect to startup/shutdown of a subject source, should be included in the CAAPP permit.

Response: In fact, the requirements of 40 CFR 63.6(e) are not applicable to the coal boilers at the Waukegan Station.[124] However, Midwest Generation is subject to and must currently comply with 40 CFR 63.10000(b) in the MATS Rule itself, which imposes similar requirements. While it is appropriate that 40 CFR 63.1000(b) eventually be addressed in the CAAPP permit for the Waukegan Station, this is not necessary for this rule to be applicable. Instead, because the scope of this permitting action addresses the changes for resolving the appeal of the initial CAAPP permit, the addition of 40 CFR 63.10000(b) to the CAAPP permit will take place in the Reopening Proceeding.

USEPA Comment 11 - Condition 7.1.9(g)(ii)(C):

The MATS rule includes work practice requirements that apply during startup and shutdown. To strengthen this language in response to the comments from Sierra Club, we suggest including the appropriate language from the MATS rules in the current version of the permit for Waukegan Station.

Response: As already discussed, the scope of this permitting action addresses the changes necessary to resolve the appeal the initial CAAPP permit. The requirements of the MATS rule will be added to the CAAPP permit in the reopening proceeding, when new applicable requirements will be addressed.

USEPA Comment 12 – Condition 7.1.10-2(d)

In previous Responsiveness Summaries for the planned issuance of revised CAAPP permits for coal-fired power plants in Illinois, the Illinois EPA has pointed out that the language in Condition 7.1.10-2(d) comes from the General Provisions of 40 CFR Part 60. However, the Waukegan Station is not subject to any requirements of 40 CFR Part 60. Why is this particular language necessary here since the reporting required by this condition addresses compliance with

[123] As already discussed, for the boilers at the Waukegan Station, it is not appropriate to limit the operation of the boilers to the loads at which emission testing has shown compliance. This would inappropriately constrain the operation of the boilers. It would also be unreasonable given the margin of compliance that has been shown in past emission testing, which should also be expected to be shown in future emission testing.

[124] For sources that are subject to the MATS rule, the applicability of the various requirements of the General Provisions of the NESHAP, including 40 CFR 63.6(e), is addressed by 40 CFR 63.10040 and Table 9 of the MATS Rule. This table clearly states that 40 CFR 63.6(e) is not applicable to sources that are subject to the MATS rule.

applicable SIP limits?

Response: The reporting requirements for opacity in Condition 7.1.10-2(d)(i), (ii) and (iii) reflect "gap-filling" by the Illinois EPA,[125] as authorized by Section 39.5(7)(b) of the Act. The reporting required by the underlying regulations would not necessarily be adequate, particularly as related to proper operation of the opacity monitoring systems. Therefore gap-filling was considered appropriate. The reporting for monitoring systems required by the NSPS, 40 CFR 60.7(c) and (d), was generally determined to appropriately address weaknesses in the regulatory requirements for reporting of data. In particular, 40 CFR 60.7(c) addresses reporting of detailed information for individual opacity exceedances. 40 CFR 60.7(d) requires reporting of general information on types of opacity exceedances and reasons for monitoring system downtime, which will facilitate review and analysis of data by the Illinois EPA and other interested individuals. Finally, 40 CFR 60.7(c) also provides for reporting of detailed information for periods when a monitoring system was inoperative, or "monitoring system downtime," when the amount of such downtime during a quarter may be excessive. This information will facilitate appropriate investigation of the causes for such downtime. This approach to reporting was also considered reasonable because both Illinois EPA staff and sources are very familiar with the reporting required by the NSPS for opacity monitoring systems.[126] However, as already discussed, in response to public comments concerning the reporting that would have been required by the draft permit, following concurrence with Midwest Generation, the issued permit requires that detailed information for monitoring system downtime always be reported for the boilers at the Waukegan Station.

Incidentally, this gap-filling was necessary because, contrary to the statement in this comment, the opacity monitors on the coal boilers at the Waukegan Station are subject to certain requirements of 40 CFR Part 60. This is because they are subject to the federal Acid Rain Program. Under the Acid Rain Program, 40 CFR 75.14, the opacity monitors on the boilers, "…shall meet the design, installation, equipment, and performance specifications in Performance Specification 1 in appendix B to part 60."[127] As such, these monitors meet the

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[125] **A Title V permit must contain appropriate requirements for Periodic Monitoring, that is, a collection of requirements for testing, operational monitoring, emission monitoring, work practices, recordkeeping and reporting that are sufficient to yield reliable data from the relevant time period that are representative of source's compliance with applicable substantive emissions limits and other emission control requirements. If the underlying applicable regulations that apply to particular emission units at source do not otherwise provide for Periodic Monitoring, the Title V permit must supplement the monitoring requirements in those regulations. This process is commonly referred to as "gap-filling."**

[126] **This approach to reporting would have required the same reporting for all coal-fired utility boilers in Illinois, irrespective of whether they were actually subject to applicable emission standards in 40 CFR Part 60.**

[127] **Other requirements under the Acid Rain Program that apply to the opacity monitoring systems on the coal boilers include the following:**

> **40 CFR 75.10(d), Primary equipment hourly operating requirements. The owner or operator shall ensure that all continuous emission and opacity monitoring systems required by this part are in operation and monitoring unit emissions or opacity at all times that the affected unit combusts any fuel except as provided in §75.11(e) and during periods of calibration, quality assurance, or preventive maintenance, performed pursuant to §75.21 and appendix B of this part, periods of repair, periods of backups of data from the data acquisition and handling system, or recertification performed pursuant to §75.20. The owner or operator shall also ensure, subject to the exceptions above in this paragraph, that all continuous**

criteria in 35 IAC 201.403 to be exempt from the requirements for monitoring in 35 IAC Part 201 Subpart L. In practice, this simplifies implementation of opacity monitoring for the boilers, as 35 IAC 201.404 is not applicable. 35 IAC 201.404 would otherwise provide that the monitoring and recordkeeping requirements of 35 IAC Part 201, Subpart L, would potentially not be applicable during periods of monitoring system malfunctions.[128]

USEPA Comment 13 – Condition 7.1.10-3(a)

The Statement of Basis does briefly touch on the relaxation that provides an additional 18 minutes before the requirements for immediate notification are triggered for violations of the opacity standard. However, the justification for increasing the number of averaging periods that trigger the immediate notification should be improved. The same argument can be made for eight averaging periods (48 minutes) of exceedance which raises the question of why the change was needed in the first place. Since "immediate" is not defined, notification should not interfere with the opacity violations experienced during any particular event – whether there are 5 or 20 averaging periods, the notification requirements provide that the source notify "immediately," which is right after the violations have ended.

Response: As discussed in the Statement of Basis, the fact that the initial CAAPP permit required immediate or event-specific reporting for incidents

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> **opacity monitoring systems required by this part are in operation and monitoring opacity during the time following combustion when fans are still operating, unless fan operation is not required to be included under any other applicable Federal, State, or local regulation, or permit. …**
>
> **40 CFR 75.57(f), Opacity Records. The owner or operator shall record opacity data as specified by the State or local air pollution control agency. If the State or local air pollution control agency does not specify recordkeeping requirements for opacity, then record the information required by paragraphs (f) (1) through (5) of this section for each affected unit, except as provided in §§75.14(b), (c), and (d). The owner or operator shall also keep records of all incidents of opacity monitor downtime during unit operation, including reason(s) for the monitor outage(s) and any corrective action(s) taken for opacity, as measured and reported by the continuous opacity monitoring system: (1) Component/system identification code; (2) Date, hour, and minute; (3) Average opacity of emissions for each six minute averaging period (in percent opacity); (4) If the average opacity of emissions exceeds the applicable standard, then a code indicating such an exceedance has occurred; and (5) Percent monitor data availability (recorded to the nearest tenth of a percent), calculated according to the requirements of the procedure recommended for State Implementation Plans in appendix M to part 51 of this chapter.**
>
> **40 CFR 75.65, Opacity reports. The owner or operator or designated representative shall report excess emissions of opacity recorded under §75.57(f) to the applicable State or local air pollution control agency.**

[128] **35 IAC 201.404 provides that,**

> **The monitoring and recording requirements of this Subpart [Subpart L] shall not be applicable during any period of a monitoring system or device malfunction if demonstrated by the owner or operator of the source that the malfunction was unavoidable and is being repaired as expeditiously as practicable. This demonstration may include, but is not limited to, evidence that the device has been properly calibrated and maintained, adequate spare parts are on hand, and trained technicians are available to make repairs.**

involving violations of the opacity standard that were as short as 30 minutes in duration (five six-minute averaging periods) is one of the reasons that Midwest Generation appealed the initial CAAPP permit. Midwest Generation argued that it was unreasonable to require such reporting for incidents of such short duration, especially as the circumstances surrounding excess opacity could still be unfolding, or the investigations would only be in the initial stages and still be ongoing. In settlement discussions, it was agreed to address these concerns by providing a relatively small amount of time for Midwest Generation to investigate and possibly resolve a malfunction or breakdown incident before the requirement for event-specific reporting for an incident would be triggered. This compromise addressed the concerns of both parties. Such reporting would continue to be required for incidents for which such reports would potentially be appropriate. Reporting for incidents of shorter duration would continue to be addressed by regular quarterly reports.

Accordingly, one issue for this this condition, as it addresses the provisions of 35 IAC 212.263 for immediate reporting, is defining the duration of opacity exceedances for which such event-specific reporting is warranted. This comment does not address this issue. Applying the argument made in the comment to this issue, such reporting could also be required for a single 6-minute opacity exceedance, since such reporting would occur after the exceedance concluded. However, requiring reporting for individual exceedances in this manner would be wholly impractical and unreasonable. By comparison, USEPA's NSPS and NESHAP rules provide that exceedances of applicable standards and requirement are to be reported in periodic compliance reports and not by individual reports for each period in which exceedances occurred. When viewed in this light, the revised CAAPP permit maintains a rigorous approach to opacity exceedances, as it requires that certain opacity incidents be accompanied by individual reporting. [129]

The other issue for this condition is the timing of the submittal of event-specific reports to the Illinois EPA. Midwest Generation also appealed these conditions of the initial CAAPP permit because of uncertainty about how the term immediate would be applied by the Illinois EPA. Midwest Generation was concerned that reporting would be required in a manner that required such reports to be made by operating staff and would not allow for appropriate participation by supervisory or management personnel in the reporting process. The Illinois EPA confirmed that the term "immediate" is not synonymous with "instantaneous."[130] **In this regard, 35 IAC 201.263 does not further delineate the required timing for submittal of event-specific reports. Rather, 35 IAC 201.263 only explains that when such a report has been prepared by a source, it should be submitted by the fastest means reasonably available, without the time delay that that would be inherent if the report were mailed to the Illinois**

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[129] It must also be noted that 35 IAC 201.263 does not provide that reporting is required after a violation due to a malfunction or breakdown has concluded. Rather, unless otherwise provided by a permit, it provides for such reporting upon the occurrence of a malfunction or breakdown that would cause a violation. In this regard, 35 IAC 201.263 further provides that a source must thereafter "…comply with all reasonable directives of the Agency with respect to the incident." As such, 35 IAC 201.263 contemplates reporting for continuing, protracted exceedances of state emission standards in circumstances where the Illinois EPA could involve itself in the corrective actions that are being taken by the sources to address such exceedances.

[130] The meanings of "immediate" in the *American Heritage Dictionary of the English Language*, Fourth Edition, 2000, are "1. Occurring at once; instant…2a. Of or near the present time …b. Of or relating to the present time; current…3. Close at hand; near…4. Next in line or relation…5. Directly apprehended or perceived…6. Acting of occurring without the interposition of another agency or object; direct."

EPA. As such, 35 IAC 201.263 and the subject conditions allow for reasonable participation by supervisory and management staff in the preparation of the required reports. It is also significant that the reporting that is required by the subject conditions for violations of the opacity standard are not expected to involve catastrophic failures of the emission control systems accompanied by emissions of pollutants that are essentially uncontrolled.[131] Rather for the boilers and other operations at power plants, opacity violations typically involve transient events. Such events are usually resolved simply with stabilization of combustion in the boiler or using standard operating procedures.

USEPA Comment 14 – Condition 7.3.2:

Generally speaking, if there is any physical equipment that is a source of emissions at the Waukegan Station that would meet the definition of an emission unit, the unit should be identified in the appropriate section of the permit. By revising the sections within the permit that identify these emission units, are there any equipment that is an emission unit that is not being captured by the descriptions in these sections? For example, does the "Coal Crushers" emission unit listed in Condition 7.3.2 cover the "Coal crushing house" and all "coal crushing operations"? Is there another way they can be described such that there is no question at the source as to what physical equipment is covered by the permit?

Response: The purpose of revising the list of emission units and air pollution control equipment in Condition 7.3.2 was to specifically identify the coal crushers as the only emission units addressed associated with coal processing. The list was also revised to specify that emissions from the coal crushers are controlled by enclosures and covers as well as dust collection devises for emissions from the coal breaker building.

H. OTHER COMMENTS

A number of comments expressed opinions about the Waukegan Station for which a response from the Illinois EPA is not necessary or appropriate, including the following comments:

> I ask that Midwest Generation withdraw its permit application and start closing down the Waukegan Station. It is time for this.
>
> This plant is outdated. Its pollution control systems are outdated. Fossil fuel will soon be also outdated. There are economical alternatives available today. The sooner we move to those, the better we will all be in our future generations.
>
> President Obama calls out that now is the time to simply close down these old coal-burning plants or make them meet the highest environmental standard. As you know, Chicago closed down two coal power plants in the last few years. We can do the same or make sure Midwest Generation meets the new standards.

[131] **For the coal boilers at Waukegan, the subject conditions would require event-specific reporting for violations of the opacity standard that, as compared to the 30 percent opacity standard, involve as little as eight 6-minute averages in a two hour period with opacity at 31 percent.**

I am not one just to say close the plant because I do not like the plant. What we need to do is think about the future, of our own economy and realize we can solve those problems and intelligently move forward. If we close our polluting coal plants, like the Waukegan Station, and the cost for electricity goes go up, then people are going to be more energy efficient. Instead of having the power plant pollute the air, we could put wind turbines offshore. The existing infrastructure could be used for clean energy.

We need to start thinking generations ahead, not just a few years ahead, because your grandchildren, you are residents here, you are working for the Illinois EPA, and I care for the environment. So we care for the environment. Mother Earth needs us. We are here to protect them. We will not thrive if we do not respect Mother Nature.

We need to make sure that environmental issues are taken into consideration. By allowing Midwest Generation to continue, this just informs that we are not caring for the future. We need to make sure we have clean air. There are plenty of examples that have showed sustainability and thriving. Why are we complying for profit when it should be for people? We need to make sure that we are taking care of the environment.

By allowing Midwest Generation to move forward, it is not helping anyone. We are hurting ourselves by continuing to hurt the environment and just temporary issues here that have already been issues in the past. Please take action to actually think ahead, think several generations ahead and not just for profit or anything that might just be short term.

The Waukegan Station should be closed.

As the Waukegan Station cannot meet the 2006 requirements that exist today, it should not be allowed to pass its cost onto the people, while they continue to operate and make a profit. These costs include medical costs.

The Waukegan Station provides jobs and electricity, both of which are important, but the plant must operate in a manner that protects the public health, safety and welfare and the environment.

The League of United Latin American Citizens of Lake County (LULAC of Lake County) represents Latinos across Lake County. We support the planned issuance of a revised CAAPP permit for the Waukegan Station. We have found that Midwest Generation Waukegan Station, under the leadership of the plant manager, Mr. Mark Nagel, to be open and honest with our group. We appreciate the communication between the source and the community; this is necessary progress for all. We also appreciate the efforts made by Mr. Nagel to personally answer all LULAC of Lake County's questions. We respectfully request that the Illinois EPA issue the revised CAAPP permit as a way to protect our environment.

The Waukegan Station leadership and employees have worked hands on with our youth cleaning up the City of Waukegan. They have assisted with the removal of debris from an alley that was filled with over ten years of debris, no lights and a haven for drug users. Because of this effort, today this is a clean alley with a working light post where the families that live in this area can now walk safely. The Waukegan Station has also

assisted with the cleanup of hazardous conditions in a building where LULAC National will reside and serve the community. The mission of LULAC of Lake County is enhanced by working together with our neighbors at the Midwest Generation Waukegan Station.

I. FOR ADDITIONAL INFORMATION

Questions about the public comment period and permit decision should be directed to:

Bradley Frost, Community Relations Coordinator
Illinois Environmental Protection Agency
Office of Community Relations
1021 North Grand Avenue, East
P.O. Box 19506
Springfield, Illinois 62794-9506

217-782-7027 Desk line
217-782-9143 TDD
217-524-5023 Facsimile

brad.frost@illinois.gov

ATTACHMENT 1:

LISTING OF SIGNIFICANT CHANGES BETWEEN THE DRAFT PERMIT AND THE ISSUED PERMIT

Condition 7.1.5(b)

For this condition, which addresses the incidental use of natural gas by the coal-fired boilers, the origin and authority for the condition was added, i.e., Section 39.5(7)(a) of the Act. The absence of this information was an oversight in the initial CAAPP permit. This change responds to a suggestion made by the USEPA for a preliminary draft of a revised CAAPP permit that the Illinois EPA prepared for the Coffeen Energy Center in the reopening proceeding for that coal power plant.

Condition 7.1.10-2(d)

This condition, which deals with the information that must be included in the quarterly reports for opacity from the coal-fired boilers, now requires the source to include detailed information regarding the operating status of the opacity monitoring systems. The draft of the revised permit would only have required this detailed information for a system if the downtime during a quarter were more than 5 percent of the operation time of the associated boiler, consistent with reporting requirements under 40 CFR 60.8(c). This change was made in response to comments on the draft of the revised permit requesting that this detailed information always be reported.